

NATURE'S REMEDIES

Early History of Botanic Drugs

NATURE'S REMEDIES

EARLY HISTORY AND USES OF
BOTANIC DRUGS AS REVEALED IN
THE LEGENDS AND ANECDOTES OF
ANCIENT TIMES

Illustrated

Published by
INDIANA BOTANIC GARDENS
HAMMOND, INDIANA

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By
JOSEPH E. MEYER
HAMMOND, IND.



HERBALISM

Yesterday—Today—Tomorrow

It has been said with much truth that in the history of medicine is to be found the history of man himself and that "the knowledge which a people possess of the art of healing is the measure of its refinement and civilization."

If the historian would trace the struggle for existence and advancement by the human race down through the ages, let him but study theories regarding various diseases and the methods employed for their relief from time to time. Thus he will see reflected on the

great screen of time the beliefs, the fears, the hopes, the superstitions and the prejudices of countless generations down to this very hour. And the picture is finished and the last scene has shown the conditions that today obtain in the field of medicine, well may the historian ask himself, in the calm light of reason and retrospection, whether we of the twentieth century have not lost some precious possessions of our forefathers through the evolution of human society.

Our Purpose Here

The purpose of this book is briefly to unfold the story of man's use for his medicinal needs of the natural products of forest and field, in the form of botanical or vegetable drugs and medicines, to note the gradual changes of opinion as to the virtues of those natural drugs and medicines and the apparent reasons therefor, and

finally to offer such conclusions and suggestions as seem necessary or warranted.

While unfolding this interesting story of botanicals, we shall take occasion to acquaint our readers with the nature of the service we have been rendering the public these many years and which we are constantly improving.

No Father of Medicine

In some fields of endeavor we have the names of men and women who, by common consent, are recognized as the first to practice some particular art or science. But history reveals to us no individual to whom to

pay homage as the first physician, or the first to practice the art of healing. Consequently, there is no "Discoverer of the Art of Healing," no "Father of Medicine," in the general sense of those terms.

MYSTICISM AND MEDICINE

Pliny tells us that medicine first became an art among the Egyptians, but this has been disputed by those who would give that distinction to other lands or peoples. Certain it is, at all events, that in Egypt medicine was raised to high estate and exercised a profound influence upon ancient times. And in the early literature of other countries of antiquity, India, China, Babylonia, Assyria, Chaldea, Arabia, physicians are frequently mentioned. In those shadowy days of antiquity the art of healing seems to have been

clothed in mysticism, to have been classed with the occult and associated with the idea of the magical, the influence of which traditions are felt in the field of medicine to this very day. But it is only fair to say that in ancient times this idea of the occult and magical permeated all forms of learning and reached every field of human endeavor. The spell of the supernatural or mysterious ever has been a potent influence for good or evil, according to the purposes for which employed.



Early Practices

It is noteworthy, in our study of ancient peoples, that the practice of medicine, while followed as a profession by many, was not then regarded as an exclusive art or science. Apparently no attempt was made nor thought given in those days to the idea of compelling the public in effect to call a physician to treat their ailments, by prohibiting their practice of self-treatment or making it impossible for them to acquire the medicines essential to home treatment. This idea of exclusiveness or professional monopoly in the art of healing is a development of recent times.

Even in the earliest years of his recorded history man seems to have been familiar with the medicinal virtues of many

plants and to have employed them freely in the relief of various ailments. Of this we have evidence in the works of Herodotus and others of our first historians, who tell us of plants well known to the present generation. Thus Aconite was employed by the ancient Chinese and the hill tribes of India; Cannabis is noted in early Sanskrit and the Vedas; Althea or Marshmallow Root is described by Dioscorides (a Greek botanist and physician) under a name in that language signifying "to heal." Calendula is noted in the earliest documentary records, and Cubeb is mentioned by Marco Polo as a product of Java. Dioscorides, if he lived in modern times, probably would be known as an "herbalist."



In the following pages are presented reproductions of several pages from an old German Herb Book over 300 years old. It is remarkable evidence of the thorough knowledge these old scientists had of the value of botanicals. On page 281 is a description of Mistletoe recommending it as an excellent diuretic. Even to this day our most modern books on *Materia Medica* attribute the same qualities to this herbal—and modern science in this instance, at least, has added nothing to the knowledge those ancients discovered. It is also worth our attention to note the remarkable correctness of the illustration of this botanical made over 300 years ago.

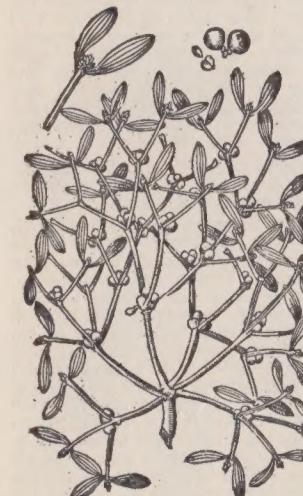
Von den Baum- und Staub-Gewächsen.

Phillyrea folio Alaterni; item folio llicis, J. B. 1. 541. Ist ein Gestände, so bald höher, bald niedriger gefunden wird, hat breite, diclichte, satzgrüne, an dem Umkreise etwas stachliche und geriefte Blätter, welche eines scharfen, bitterlichen und etwas zusammenziehenden Geschmacks. Die Beeren oder Frucht hängt Trauben, welche zwischen den Blättern, in der Größe der Pfefferkörner, ist schwarz, und eines saarhaften Geschmacks, auch mit einem Stein-harten Kerne begabet. Es wächst in dem Königreiche Portugall, hin und wider in denen Hogen:

CAPUT CXXXV.

Mistel. *Viscum.*

Schweizerische Mistel mit vielen Beeren.
Helveticum Viscum polycoccon.



Nahmen.

Mistel oder Mispel heißt Griechisch, Tess. Th. 2. cauf. 23. Dioct. lib. 3. cap. 103. Lateinisch, *Vicum*, *Viscus*, Italianisch, *Visco*, Franköisch, *Gui*, Spanisch, *Liga*, Litia, *Vilco*. Englisch, *Mistletoe*, und Mistel. Niderländisch, *Mastelaten*.

Folia conjugata; angusta, oblonga; Flos monopetal; pelviformis, quadrifidus, verius conspersus, mas; Ovarium alio à floré loco natum, tenerum, quatuor foliolis succinctum; sit bacca subrotunda, glutine plena, continens semen planum, cordatum. B. J. A.

Gestalt.

Der Mistel ist männlich bekannt. Er wächst auf vielen Bäumen, mit zähen, bisweilen eines kleinen Fingers dicken, und durch einander geschränkten Knödeln; die Blätter sind bleichgrün, bisweilen gelblich; ablang, dick, rundlich, seit, eines füßen, scharflichen Geschmacks. Er bringt auch seine Blüthe, thells

bey denen Knödeln, thells an denen außersten Knödeln; diese Blümlein sind klein, gelb, und in vier Theile zertrümet, welche hernach in kleine, weisse, durchsichtige, gestreifte Beeren auswachsen, die mit einem schleimlichen, fleibigen Saft angefüllt, eines nicht unlieblichen, weinigen Geruchs, und etwas unmythigen Geschmacks. In einem jeden Beerlein steht ein silberfarber, breiter, flacher Same, in der Figur eines Herzens. Aus dem Saft solcher Beeren wird der Vogel-Leim zubereitet. Er wächst auf vielen Bäumen: Als auf der Hohen Stauden, dem Linden- und Eich-Baume, welche drey für die besten gehalten werden; nem auf dem Ahorn-Aesche-Weiden- und Ulmen-Baume und andern mehr. Ja die Aleyfel und Bienen-Bäume sind davon auch nicht bereyzt. Jo HANNES BAUCHINUS meldet annoch von vielen andern Bäumen, darauf er diesen Mistel gefunden. Er grünnet immerdar, auch den Winter durch auf den Bäumen, und ist also schwer zu glauben, das er auf dem Eich-Baume seine Blätter in dem Winter fallen lasse. Er blühet

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blühet im Frühlinge, gegen dem Herbst bringt er seine Beeren, welche hernach den Winter durch dauern, und an dem Gewässer bleiben, da sie denn denen Vogeln zur Speise dienen, und dieses ist *Viscum Quernus & alior. Arborum.* J. B. I. 2. 89. *Viscum baccis albis.* C. B. P. 423. T. 610. B. J. A. II. 228. *Viscum Dod.* pag. 826. *Viscum Ger.* Raj. H. 1583. *Viscum vulgare.* Park.

Wenn mir hieraus klarlich zu seben, daß der Mistel ein vollkommenes Gewächs ist, so soll man auch dem *ARISTOTELI*, *PLINIO*, und übrigen alten Natur-Kundigern die Ehe geben, und denjenigen, was sie in ihren Schriften hinterlassen, Glauben zu stellen, daß nemlich der Mistel nicht aus dem Urnach gewisser Vogeln, welche andere Beeren eßen, sonderen vielmehr aus seinem eigenen Samen, der von denen Vogeln, welche die Mistel-Beeren gessen, auf die Bäume durch den Urnach geworfen wird herkommen. Welches dann ein jeder erfahret fan, wenn er nur die Samen des Mistels in die ausgehöhlte Rinde anderer Bäume vergebet, woraus sie bald machen werden. Es hat auch noch eine Art des Mistels mit rothen Beeren, welche nach *C. vni Bercht* in Hispania auf denen Olbl-Bäumen wachsen. *Viscum baccis rubris.* C. B. P. 423. Raj. H. 1584. T. 610.

So hat man in Indien auch Mistel auf denen Bäumen gefunden, welchen unsern Misteln ganz ähnlich ist, *Viscum tenis circulus utrinque insculptis.* C. B. P. 428. *Viscum Indicum.* J. B. I. 2. 95. Ger. Park. Raj. H. 1584. und *Visc. Indic. alterum.* Ic.

Der berühmte *BONTIUS* beschreibt in gleichem eine Gattung des auf dem Eich-Baume, *Kiati* von denen Indianern genannt, wachsenden Mistels, welcher der Haus-Wurzel ähnlich seyn solle, und deswegen von ihm *Sedum arboreum*. *Bonti* von andern aber *Frutex parasiticus*, *baccifer Semperivi* *zimulus flore odoratissimo.* Raj. H. 1585. genommen wird.

Eigenschaft.

Aller Mistel insgemein, sonderlich aber der Eichel-Binden- und Haselkraut-Mistel, hat in seinem schleimhaften Saft ein alkalisches, süchtiges Sals verborgen, und daher die Eigenschaft alles Sauere zu verflüssigen, die Verfroßungen der Krebs-Waren zu erlösen, der fallenden Sucht zu steuern, und folch nach und nach zu stillen, dem Abnehmen des Leibs zu wehren. Viele aber glauige Leute halten den Eichen-Mistel für den besten, welcher auf denjenigen Mittag abgehauen worden, da Sonne und Mond in den Krebs gehen, so alle sieben Jahre eine mahl geschiehet.

Gebräuch.

Der Eichen-Mistel hat eine sonderliche Kraft der fallenden Sucht zu widerstehen, daher *GENTILIS* und *JACOBUS* de *PARTIBUS* ihm *Lignum S. Crucis*, oder *Hilf. Excruc.*

holz nennen. *RONICERUS*, der alte Kräuter, schreibt in dem 4. Theile seines Kräuter-Buchs im 114. Cap. So eine Frau in gefährlichen Kind-Nöthen lige, soll man ihren gefosstenen Eichen-Mistel in Wein eingeben, sie werde darauf bald genesen, und das Kind sein Lebenlang vor der fallenden Sucht bewahrt seyn; Ein kostliche Wirkung, wann sie eintrifft.

Wider diese Krankheit wird er in Engel-land auf nachfolgende Weise gebraucht. Man muß nehmen rechten Eichen-Mistel, so wohl die Blätter als die Beeren, und die zarten Beeren, solche gelind in einem Ofen dorren, und zu Pulver machen: Darauf soll man einer großen Person eingeben, als desfern auf einem halben Kopftücke liegen lassen: Denen Kindern aber muß man etwas weniger geben, nach eines jeden Starke und Alter. Man muß es des Morgens und des Abends eingeben in einem dazu bequemen Wasser: Als nemlich in Schlüssel- oder Maplumlein-Wasser, und solches drei Tage vor und drey Tage nach dem Vollmonden, dieses soll man etliche Monate nach einander thun, ist damit vielen vornehmen Personen geholfen werden.

Wenn ein Kind Würme hat, soll man Würme ibm gefosene Eichen-Mistel in warmer Milch eingeben.

Was machen der Eichen-Mistel von den alten Heidnischen Priestern zu dem Überglauen sehr gebraucht werden, lehret *PLINIUS* lib. 18. Hist. nat. cap. 44. wenn er spricht: Es halten die Druiden (also nennen die alten Deutschen und Gallier ihre Priester) nichts heiliger als den Mistel und Baum, auf welchem er wächst (sonderlich wenn es ein Eich-Baum wäre) denn sie halten ohne dß viel auf denen Haunten der Eich-Bäumen, und verrichten ihnen Gotterdienst immer ohne Eich-Baum-Zweige: Als das es auch scheint, daß sie von denen Zweigen daher seyen.Druide genannt werden. Sinterndalen was an denen Eich-Bäumen herum wächst, halten sie, als wenn es vom Himmel wäre kommen, und sene dß ein Zeichen, als wenn der Gott (Jupiter) selbst diesen Baum für andern erwählt hätte. Es ist aber dieser Eich-Mistel schwierig zu finden, und so man ihn findet, wie er mit heiligen Ceremonien eingeholt. Sie nennen (diesen Eich-Mistel) in ihrer Sprache, *Hest. aller Schaden*, und wenn sie ihre Opfer und Mahlzeiten unter dem Baume haben gehabt, bringen sie zweien weißen Ochsen herbei, deren Hörner zuvor noch nicht gebunden waren. Der Priester mit weisen Kleidern angehabt, steigt auf den Baum: Mit einem goldenen Messer hauet er denselben ab, welcher in einem weißen Mantel empfangen wird. Alsdann schlägt sie ihre Opfer, hittende, daß ihnen Gott diese seine Gnade segnen wolle. Sie vereinen, daß Leute und Vieh, so darab trinken, frischbar sollen gemacht werden, auch dies eine gewisse Aetzen wider alles Gift seyn. So viel Überglauen treiben gemeinlich solche Leute in nichtwürdigen Sachen.





LEGENDS, AND THEIR USES

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Ian, also lässt es sich aus denen vorher beschriebenen Gattungen des Krebses praktizieren.

Das Andere Buch

Mehe davon kan in meines sel. Vatters THEODORI ZUINGERI Dissertation de Plant. Nasturt. nachgelesen werden.

CAPUT LXXII

Großer Brunnen-Kreß.
Nasturtium aquaticum majus.



Nahmen.

Nunnen-Kreß heißt Griechisch, Καρδαμίνη, καρδαμίνη, Σιρυζάρος τρεφεν. Diolc. lib.2. cap. 155. 156. Lateinisch, *Sisymbrium aquaticum*, *Nasturtium aquaticum*. Italiäisch, *Sisembrio aquatrico*. Crezionale. Französisch, *Cresson de fontaine*. Spanisch, *Berros*. Englisch, *Watercress*, *Watercress*. Dänisch, *Wandkarse*, *Wandkarse*. Niderländisch, *Waeterkreef*.

Geschlechte und Gestalt.

Der große Brunn-Kreß : *Nasturtium aquaticum majus*, *Nasturtium aquaticum supinum*, C. B. P. 104. *Sisymbrium*, *Cardamine*, *five* *Nasturtium aquaticum*; J. B. 2. 884. *Nasturtium aquaticum vulgare*, Park. Raj. H. 816. *aqut. five* *Crateva*. *Sium*. Ger. *Sisymbrium aquaticum* Math. 487. T. 226. B. J. A. II. 15. Hat einen hohlen Stengel, ungefähr einer Elle hoch. Die Blätter, so reiflich verschwommen, sind rund, darnach werden sie zerschnitten, wie an dem wilden Senf. Er bringt kleine, weiße Blümlein, hernach folgen kleine Schötlein mit sehr kleinen Goldfarben Samen. Die Wurzeln sind fast reine, weiße, harte Faseren, wie Haar oder Seide. Er wird den uns und andernorts füremlich in Brunn-Quellen auf dem Wasser schwébend gefunden.

Kleiner Brunnen-Kreß.
Nasturtium aquaticum minus.



Der andere Brunn-Kreß : *Sion vulgaris*. Matth. Lugd. *Nasturtium aquaticum majus & amarum*, C. B. P. loc. cit. item. *Nast. aqu. 3. five erectum folio longiore*, Ejusd. *Sisymbrium*, *Cardamine*, *five* *Nasturtium aqu. flore majore clatus*, J. B. 2. 885. *Nast. aqu. amarum*, Park. Raj. H. 814. *Cardamine flore maiore*, *elatior*. T. 224. Hat Ellen hohle, in dem schattichten ganz schwache und zarte, in den offenen Endreiche aber stärkere, oben auf hohle Stengel, welche wechselseitig mit bitterlichen Kreß-Blättern geziert, und an ihren Spießen in dem Frühlinge viele, weiße, vierblättrige Blümlein, darinnen sechs Fäserlein mit purpur-rothen Spießen sich finden, herüberbringen. Hierauf folgen die dünnen Schötlein, welche, da sie reif werden, von einander springen, wenn man sie mit warmen Fingern an dem Ende anrühret. Er wächst in sumpf- und wässerichtem Boden; oder aber in sandigtem Boden der Wässern;

Der dritte und kleine Brunn-Kreß : *Nasturtium aquaticum minus*, C. B. P. loc. cit. *Cardamine impatiens altera hirsutior*, *Sisymbrium Cardamine hirsutum minus* *fiore albo*, J. B. 2. 888. *Cardamine IV. Dalechampii*. Lugd. 559. Hat eine weiße, einfache Wurzel; bringt kleinere, dem Wiesen-Kreß gleiche, etwas haarige Blätter; und treibt viele, astigke, mit einem oder

Von den Kräutern.

oder dem andern Blättlein begabte Stengel über sich, deren Gipfel mit weißen, vierblättrigen, kleinen Blüümlein und darauf folgenden, Zoll langen, inwendig mit einem Häuslein in zwei Samen-Lager gehalten, grau-weißen Schöcklein geziert sind. Wächst nicht allein bei den Bächen und Brünnen, sondern auch in den Gärten, ist am Geschmacke scharf, doch nicht so sehr, wie des ersten. Althier bey dem Weitem Fluße an sandigen Orten bringt es einen getrockneten Stengel, so stöter keine Blätter trägt. Noch eine kleinere Art wird in den Wein-Gärten des Dorfs Weil in der Margräfländchen Herrschaft Röthen liegend, angetroffen. Blübt im Aprilen, bisweilen auch im Merken.

Eigenschaft.

Diese Kraut-Gewächse, dieweil sie noch grün und feucht sind, wärmen und trocken gleichfalls. Sie begreissen viel süchtigen, alcalischen Salzes, und, den Bergmann kein Oehl in sich; daher sie die Eigenschaft haben, das kalte und schleimige, scharbockliche Gelüste zu säubern, alle innerlichen Verstossungen zu erdhnen, Sond, Schleim und Harn zu treiben, den kurzen Atem zu erleichteren, die verstopften Gehörs-Ahern zu erdhnen, die monatlichen Bluhmen der Weiber wieder zu bringen und die Milch-
sucht zu vertilgen.

Gebräuch.

Wenn der kleine Brunnen-Kreis noch jung und frisch ist, wird er an vielen Orten im Salat gebraucht: Der gemeine Mann vermeint, den hingegen Wagen damit zu kühlen, da er doch denselbigen möglichst erwärmet: Alß gebraucht, treibet er den Harn, und das Gris fort, ist gut den milchsüchtigen und erlahnten Menschen. Solle von schwangeren Weibern nicht zu viel genossen werden, weil er zu sehr treibet.

Berstedt
Harn,
Gries,
Witts,
Branden-
ten, erledi-
gter Me-
rell.

Innernliche Verstopfungen und Faulung der Leber und des Milzges und Faulung der Leber, und Milz, Wasserfuß Scharbock, welche zu den innerlichen Verstopfungen und Faulung der Leber und des Milzges gar musikalisch gebraucht werden, dervoreigen es nicht allein den Wasserfußtigen gar dienlich, sondern auch vielmehr denjenigen, welche mit dem Scharbock, so eine gemeine Krankheit in Sachsen und Nitternachtigen Seeländen ist, befunden ist. Allein hier ist wohl zu beobachten, daß es nicht dienlich in dem bisherigen Scharbocke, wegen seines süchtigen, alkalischen Salzes, welches leicht das Gehlute noch flüssiger und scharfer; mit ihm den Scharbock nicht nur nicht heilen, sondern noch andere gefährliche Fälle, als starkes Bluten, grosse Schmerzen und dergleichen erwecken würde: Woraus dann er heller, daß dieses Kraut nur zu gebrauchen, wo das Gehlute dick, wässrig und langsam, folglich zu Verstopfungen sehr geeignet ist. Man mag ihn in Wasser züden, oder in weissem Wein einbeinen, oder aus dem Saft einen Sirup zubereiten.

Berstekter Das in dem Harn oder Angst-Monat aus
Harn, dem blühenden Brummkreise destillierte Was-
Gries und ser, treibt den berstekten Harn, Gries und
Sand, Sand fort, erdsnet die verstopfte Leber und
Leber und

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Milch, ist treslich wider den kalten Schab-
schaarbock, davon eine lange Zeit Morgens müchter
fünf oder sechs Portz getrunken. Es verhindert
und die Selbstgut, die drey- und vierjährige
Fieber, die wüste Raude an dem Leibe, Febriger.
wenn man zwischen dem Gewürz desselben
bisweilen purgaret.

Brummkreisch-Samen; ja auch der Samen von dem Garten-Kreis, auf ein halbes oder ganjes Quintlein schöner etliche mahl geronne mit Körbelkraut-Wasser eingenommen, zertheilt alles geronne Blut in denen, welche etwas einen schweren Fall gehabt, oder welche einen großen Schaden gehabt, daß Geschoßes das Gesüte davon erwidert, und zu strotzen angefangen.

Kreisch - Samen mit präparierten Krebs-
Steinen, Mauerrauten - Kraut, Florentin-
scher Beil-Wurz und dem Diaphor-Jovial
aus den Apotheken, jedes ein Quintal,
zu einem subtilen Pulpa unter einander ge-
mischt, auch nach Belieben ein Roth Zuc-
sandl dazu gemischt, gibt ein köstliches
Trühe-Pulpaertel ab für diejenigen Kinder, Abnehmen
welche mit dem Abnehmen oder Schwind- und Schwind-
sucht von Verfestigung des Milch-Abers und Schwind-
Driisen des Gethos befallen. Man kan Kindern
anfangs bis dreissig oder mehr Gran täglich
davon zwemahl in Magstheben- oder Brunn-
kreisch - Syrup eingeben, und indefter die
Kinder oft baden, auch den Leib oder große
Bäude und Rückend derselben mit Hund-
Schmalz, Kapuainen- oder Gans-Schmalz,
Chamillen und Beil-Deil täglich zwemahl
wohl warm schütteten.

Folgenden Syrup kan man auch wohl zu bereiten: Neun Brummkreise, Badypun-
gen, Borretsch, der oberen Schödeln von
Hopfen, Löpfel-Kraut, jeder Gattung nach
Belieben, zerbackt und kost alles in einem
steinernen Töpfel, drückt den Saft gleich
aus, ziehet den geistreichen Theil davon zur
Genüge ab, und zwir aus einem gläsernen
Kolben durch den Helm. Den in dem Kol-
ben verbliebenen Saft lasst durch ein Tuch
lauffen, damit er wohl rein werde, mischt
halben Theil Zucker darunter, kocht es bis
zur Dicke, die du nothig ware, Tafelsoße
daraus zu machen; wenn es bernach fast
erkalitet, so mischt von dem zu erst abge-
zogenen, geistreichen Saft oder Wasser so
viel darunter, bis es die Dicke eines Syrups
hat: Diesen Syrup muss man in wobluer-
machten Gläsern aufzuhalten. Von demselben
aber täglich unterschiedliche mahl etliche Löff-
sel voll eingemommen, edimurier das sähle, schleimiges
schleimige, versüget das saure und mildert
das schwarze, verschalene Gedulte, vertrethet
die Melancholie, Mills-Sucht und den
Scharlock, stärcket den Magen, erwechet Scharniert,
die Eßlust, erfrischt die verstopften Gekröse,
Aern bei Jungen und Alten, erhalten ei-
nen offenen Leib, lindert das Grinnen
und Leidweh, sonderlich mit einer guten
Mefferspise voll Benetianschen Thierath der
mischoet, mildert das Ories und den Lenden-
Schmerz, treibet Sand und Schleim durch
den Harn, und verhindert den Steinknoten
der Nieren.

శతాబ్ది

The Appeal of the Natural

It was but natural that primitive man should turn to the products of field and forest for medicinal agents with which to bind his wounds and relieve his physical ills. Indeed, some of the very same reasons and feelings which actuated early man in his choice of natural remedies still carry an appeal for his successor of today. There ever has been a belief, shared by great masses of people in many lands, that an all-wise Providence has supplied man, in the great natural laboratories of forest and field, with plants capable of serving his every ordinary medicinal need. It was not until man became so captivated by the synthetic products of his own creation, in a mechanical age

BOTANICAL AND VEGETABLE DRUGS

At this point in our discussion it may be observed that no distinction is intended here between botanical and vegetable drugs. Both, of course, are natural products and the terms "botanical" and "vegetable" are not only frequently used interchangeably by many writers but popularly regarded as practically synonymous. From a technical standpoint there may be rea-

in which the substitution of the synthetic for the natural or real was a common expedient, that man began to discount the bounties of nature, to overlook the natural medicinal resources lying all about him, to forget the experience and accumulated wisdom of his forefathers, and to become more and more dependent upon man-made products for his every-day health requirements. The tendency toward the synthetic in drugs and medicines really had its beginning in the general trend of the times, but that tendency was increased and hastened, as we shall see, by a combination of circumstances which have brought about the present status of botanicals.

sons for dividing natural drugs into classes and for regarding one group as botanical and the other as vegetable in character. Here, however, the term botanical is used in its popular sense and is broad enough to include all natural drugs, even though some of them might be labeled as vegetable under a strict classification.

Household Remedies of Colonial Times

Naturally our forebears, when they sailed for America to establish the Colonial settle-



nature at first hand. From the Indian the Colonists learned much of the qualities and powers of many new botanical drugs that were to be found in nature's own wonderful laboratories. In his history of medicine Wilder says:

"Many of the early Botanic Physicians of America appear to have obtained their first conceptions of medical knowledge from intercourse with the natives. In some instances they had been led into captivity, and so had the opportunity to learn the procedures and remedies

ments that were destined to develop into this great nation, took with them those simple household remedies prepared from botanical drugs that had been used by generations before them and upon which they expected of necessity to place chief reliance for their every-day health requirements. When they landed on the shores of the New World and came in contact with the Indians, they gradually added to the medicinal knowledge of the White Man the fruits of the Red Man's close association with



employed by their captors. In other cases there were individuals of Indian descent who brought their skill to the knowledge of their white neighbors, by living among them and treating their various maladies. White men likewise cultivated friendly relations with native practitioners, and learned from them the plants and methods of treatment which they had found beneficial."



The Red Man's Medicinals

The medicinal plants used by the Red Man, and forming in and of themselves a comprehensive Botanical Materia Medica, are the following:

Podophyllum, Phytolacca, Iris, Leptandra, Aletris, Helonias, Collinsonia, Chionanthus, Asclepias Tuberosa, Apocynum, black and blue Cohosh, Che lone, Euphorbia, Agrimony, Xanthoxylum, Cactus, Gentian, Chenopodium, Equisetum, Lycopus, Hepatica, Hydrastis, Convolvulus, Arum, Arbutus, Geranium, Geum, Gaultheria, Sanguinaria, Lobelia, Dioscorea, Scutellaria, Spiraea, the various plants named "snake-root," Sumac, Golden Rod, Viburnum, Galium, Erigeron, Alnus, Veratrum Viride, and many others.

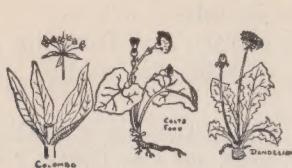
In Colonial times the botanical or vegetable kingdom supplied man with practically all his medicines. In those days families freely exchanged information as to the virtues of some plant in a particular ailment. Indeed, almost every individual joined in the search or was on the alert for some new herb or combination of herbs that would help prevent or relieve disease. It is interesting to note that the remedies of that period include the herbs we know as yellow dock, sarsaparilla, wintergreen, birch bark, elecampane, comfrey, sassafras, plantain, whitewood,



Indian hemp (apocynum) wild ginger, mullein, pink root, nightshade, barberry, sweet flag, catnip, wormseed, gold thread, dogwood, skunk cabbage, bittersweet, slippery elm, boneset or thoroughwort, blue gentian, crane's bill, pennyroyal, frostwort, henbane, blue flag, butternut bark, juniper berries, burdock, wild cherry bark, flaxseed, pumpkin seeds, parsley root, Mayapple, black alder, elder berries, white oak bark, sumach berries, rosemary, blackberry root, willow bark, sage, blood root, skullcap, seneca (Polygala), mustard, golden rod, queen's root, stramonium seeds, uva ursi, valerian (Cypripedium), hellebore, prickly ash, touchwood, agrimony, sweet fern, mandrake, marjoram, coltsfoot (Tussilago), mistletoe, Peruvian bark.



dandelion, snake-root, hardhack, horse radish, peppermint, spearmint, red peppers, Indian tobacco, wormwood, tansy, yarrow, star grass, marshmallow,



SCIENTIST VOICES PLEA FOR RETURN OF GRANDMOTHER'S MEDICINE CHEST

Public Ledger, Philadelphia, Pa.

Dr. Griffith Says Teas from Sage, Camomile, Boneset and Many Other Botanical Drugs Have Been Too Long Neglected by Physicians.

Back to Grandma's medicine chest.

This was the keynote of an address by Dr. Ivor Griffith, of the faculty of the Philadelphia College of Pharmacy and Science recently delivered before the New Jersey State Pharmaceutical Association.

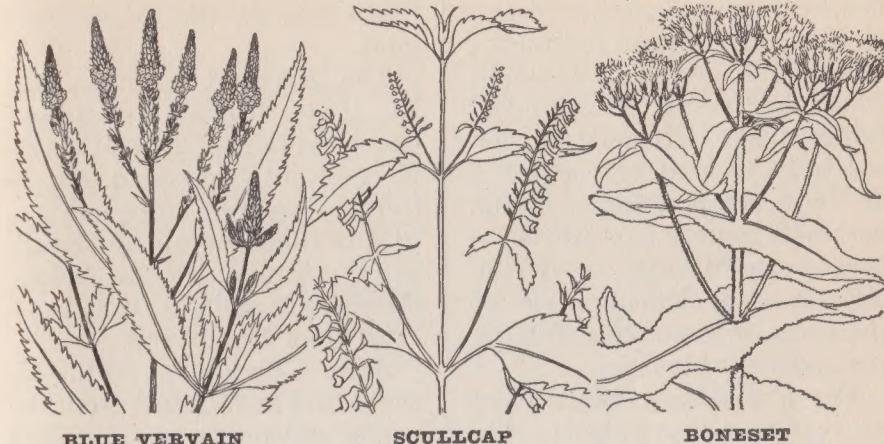
"*No one can convince me,*" he said, "*that grandmother's fresh drug infusions or old-fashioned teas of garden herbs had no special value. Too much neglected have been sage and chamomile, boneset and mullein, bitter apple and horse nettles, plantain and heal-all, liverwort and tansy, pumpkin seeds and mallow and a host of other herbs that have served the country for centuries with their ministrations.*"

Plant drugs, he pointed out, have stood the test of time far longer than have the scalpel, virus or vaccine and there is a real need for research in the direction of discarded commonplace drugs.

"*A host of drugs deserving a better destiny lie prematurely buried,*" he said. "*In a mad scramble to squeeze out of the coal-tar barrel every available virtue, research has neglected the botanicals. There is a myriad of plant antidotes to pain waiting for proper appraisal. It is high time for a botanical renaissance.*"

Sent in by Wm. H. K., Camden, N. J.

NOTE: Whether this "botanical renaissance" is to come depends upon the American public. Let your Congressman know that you believe in natural herbs and ask that the products of field and forest be given a fair chance under the laws and regulations with respect to drugs and medicines.



THIS NERVOUS AGE

An English investigator is reported as having reached this rather astonishing conclusion:

"In this age of the world, 'Nerves' are more important than in the age of William the Conqueror, not because the pace is faster than in 1066 but for the precisely opposite reason. It is much slower. Life in old England may have been merrier, but it was certainly shorter than it is now, the struggle for bare existence keener. Hardly any people in this Country, speaking statistically, are in imminent peril of actual starvation. Millions of people now have leisure for reflection. They may not be actually hungry, they are not in imminent peril of death, but they are insecure."

While some of the other investigators in this field may entertain different views as to

underlying and contributing causes, all undoubtedly will agree that the present generation is a pretty "jumpy" aggregation of individuals, and that the general condition of the nerves may be described as more or less frayed. We are under such pressure and strain in these hurried and anxious days that our nerves are subjected to constant tension.

Whenever we speak of nervousness in this book, we are referring to such nerve conditions as may be due to fatigue, over-strain, or those temporary and occasional circumstances in our hurried modern life which may call for a medicine that will exert a soothing and mildly sedative influence. We do not have in mind and are

not to be understood as referring to, directly or indirectly, those more serious nerve conditions that result from underlying causes that must be successfully treated before relief of the accompanying nervousness will be possible. Nervousness as a disease, or in the strict and technical sense of the term, is something for the trained physician.

For a soothing influence on nerves that have been subjected to undue excitement and strain, there are a number of botanicals in rather wide favor: Fragrant Valerian Root, Blue Vervain, Chamomile, Scullcap, Wood Betony, Lady Slipper, Catnip, Comfrey Root,



Sage Leaves, the latter very mild.

The prepared formulas are: No. 21 Dr. Brown's Nerve Root Compound, No. 24 Old Style Nerve Root Compound, No. 26 German Celery Compound, No. 29 Viro Blue Vervain and Scullcap Compound, No. 227 Celery Compound, and No. 16 Cohosh Wild Root Compound.

After a trying day at the office, or when fatigued from the hustle and bustle of this rapid age, with its heavy and exacting social as well as business demands, or when suffering from what commonly is known as a nervous headache, try these natural remedies. They are mild, gentle, and may be used as directed with perfect assurance that they are free from the harmful effects sometimes attributed to chemical and synthetic products. Be modern, by all means, but be consistently natural by sticking to botanicals.

No. 938—Price, \$3.00 per oz.

Aroma De Forest—Here is a most astonishing and delightful new perfume. Different from anything ever attempted before. A perfume made from the twigs, branches, leaves and wood of trees of the forests of the North, blended with the highly aromatic woods of the trees of southern climes. Among these woods are the following: Sandalwood, Cassia Bark, Sassafras Bark, Pine and Spruce. While this exquisite perfume may be used as a handkerchief perfume—and as such is most delightful—it is far better adapted for use in the home, in clothes closets, and to give the entire atmosphere of the home a most refreshing odor.

ORIGIN OF THE TERM "PHYSICIAN"

There seems always to have been an air of mystery and perhaps of sorcery about the subject of medicine and the treatment of disease. It is said that Hippocrates and others employed the Greek word (*Phusis*), meaning the natural constitution, to signify pharmacy and sorcery, and that in this way those who taught and practiced the art came to be known as "physicians."

The heavenly bodies also were commonly believed by the ancients to have a profound influence upon health. And this belief went far beyond the mere

idea that the succession of the seasons, or the changes between winter and summer, spring and fall, were responsible for illness. Indeed, it was felt that man was in the power of astral influence. Paracelsus of Württemburg expressed this thought when he said: "Man's diseases do not originate in himself, they originate from the influences which act upon him and enter his constitution. If the air becomes vitiated, it may poison man's body; if the astral influences are in a state of corruption, they may do likewise."

THE BEGINNING OF SELF-MEDICATION

We are told that the Clergy often practiced medicine in conjunction with their pastoral duties. Apparently it was not at all unusual for officials and often magistrates to prescribe for their neighbors and friends, while members of families did likewise for one another. Only in exceptional cases was attempt made to obtain the services of physicians, who were few and widely scattered. That this custom of practicing self-medication and of offering suggestions to neighbors, friends and relatives as to the relief of their ordinary ills still is rather common among all classes of

society, is evidenced by the following observations of a Federal judge upon a recent occasion:

*"Congress (in enacting the Food and Drugs Act of 1906)*** had in mind the feeling, I take it, of the great mass of the country that its membership would practice, to some extent at any rate, self medication, in an endeavor to alleviate and cure some of the ailments and diseases to which all of us are subject. It was recognized that we have had various medicines and various treatments handed down to us from one generation to another, and that the*

privilege of self-medication should not be taken away from the public. All of us, I take it, at times in our lives, have doctorated ourselves, and it may have been wise or unwise to do it. All of us, I take it, have assumed from time to time to give advice to members of our family, or to our friends, as to

what they should do in certain instances, and in most such instances where we, as laymen, attempt to treat ourselves or to treat members of our families or our friends, we ordinarily use what are known as homely or common remedies or medicines."

"KNOWLEDGE OF NATURE IS THE FOUNDATION OF THE SCIENCE OF MEDICINE"

Paracelsus of Württemburg, one of the pioneers in the field of medicine, is credited with saying: "The Knowledge of Nature is the foundation of the science of medicine, and it is taught by the four great departments of science: Philosophy, Astronomy, Alchemy and Physical Science. * * * In this understanding rests the indication of the true remedy. * * * He (the successful physician) must, above all, be in possession of that faculty which is called Intuition, and which cannot be acquired by blindly following the footsteps of another; he must be able to see his own way. If you wish to be a true physician you must be able to do your own thinking, and not merely employ the thoughts of others. What others teach you, may be good enough to help you in your search for knowledge, but you should be able to think for yourself and not cling to the

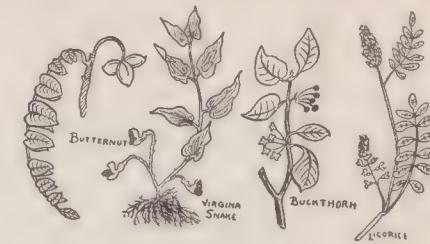
coat-tail of any authority, no matter how high-sounding the title of the latter may be."

A little independence of thought in things medicinal would be good medicine for the public today. We seem to have fads and fancies about our methods of treating human ailments, as in other fields of endeavor. There is altogether too much inclination toward a blind following of those who are willing and anxious to lead. Drugs and methods often go in cycles, like the styles in dress. What is popular in one decade or generation may be thrown on the scrap heap and forgotten until its sudden return to favor. Botanicals once almost universally used, have been thrown into partial eclipse by propaganda in favor of laboratory products, but those old-fashioned natural remedies are threatening to break through the clouds and once more shine upon mankind.

FACTS THAT STAND OUT

Among the facts which stand out in the history of medicine, and to which is to be attributed in no small degree the present status of botanical drugs, is the intolerance of practitioners and laymen entertaining theories and views at variance with the practices or methods of treatment which happened to be popular at the moment. This intolerance is particularly noticeable today not only in the attitude of one school of medicine toward another but in the position assumed by different groups of practitioners in a particular school. Indeed, that physicians are prone to disagree as to the virtues of some particular drug or combination of drugs, or as to the method of treatment that should be used in attempting the relief of some particular ailment, is common knowledge. Two simple truths seem to have been overlooked or forgotten in this connection. The first is that in medicine, as in other fields of human activity or endeavor, the other fellow may have at least as good grounds for his belief and for regarding you in the same light in which you insist upon regarding him. The

second is that there is no particular advantage gained through adopting something that is new merely because of its novelty. A change that represents real improvement is one thing, but the substitution of one herb or medicine for another simply because it is of the commercial advantage of those who make the change or that it happens to be their own brain child, is something else indeed. Experimentation is a vital necessity if the human race is to advance and improve, but it can be carried too far and defeat its own purposes. We shall see that this is peculiarly true in the field of medicine and that, perhaps without realizing the significance of what we were doing at the moment, we have discarded many reliable botanical drugs, which gave our forefathers such excellent service, for the synthetic products or chemical compounds of our man-made laboratories, often without real necessity or justification but rather for the reason that we shared to some extent the prevailing unrest and desire for change.



What John Wesley Thought About Doctors

In commenting upon these tendencies in the world of medicine, both in Colonial America and European countries, the Rev. John Wesley once observed:

"As theories increased, simple medicines were more and more disregarded and disused; till in a course of years the greater part of them were forgotten, at least in the more polished nations. In the room of these, abundance of new ones were introduced by reasoning, speculative men; and those more and more remote from common observation. Hence, rules for the application of them, and medical books, were immensely multiplied; till at length, Physic became an abstruse science, quite out of the reach of ordinary men. Physicians now began to be held in admiration, as persons who were something more than human. And profit attended their employ, as well as honor, so that they had now two weighty reasons for keeping the bulk of mankind at a distance, that they might not pry into the mysteries of their profession. To this end they increased those difficulties by design, which were in a manner by accident. They filled their writing with abundance of technical terms utterly unintelligible to plain men."

INFLUENCE OF ASTROLOGY

Some of the mysterious and occult that seems to have been associated with the practice of medicine or the relief of human ills in earlier times, and which even now have not entirely vanished, may be explained in part at least by the fact that in the minds of some men and women there has been a con-

nexion between astrology and medicine. We are told that the power and influence of the stars were so commonly acknowledged at one time that astrology was taught in connection with the study of medicine in most of the universities of Europe.

Shifting Styles in Medicine

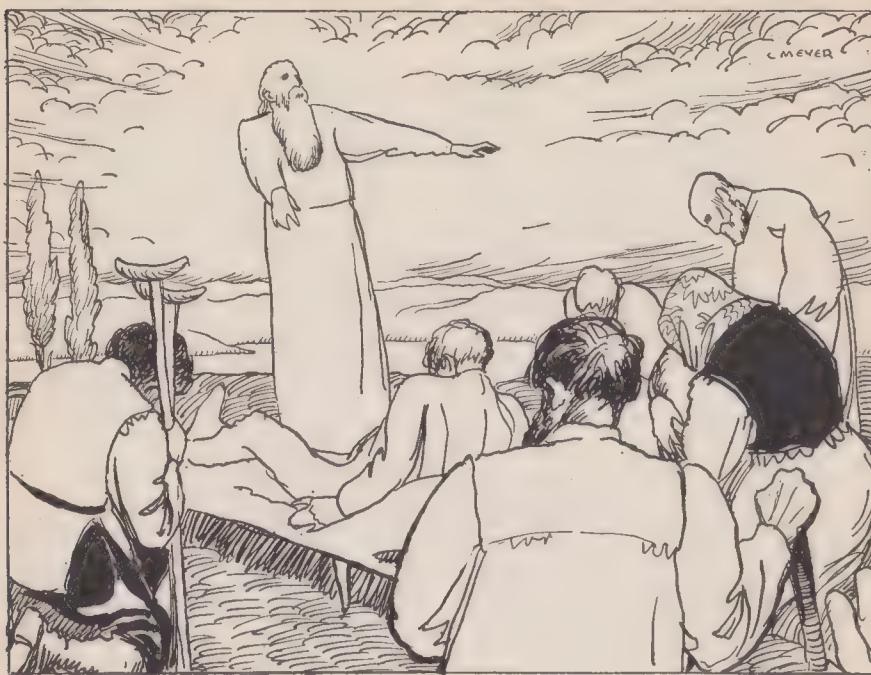
The rapidly moving procession of medical theories and doctrines that passes before our modern eyes already was moving with quickening pace in the days of Thomas Jefferson, who upon more than one occasion expressed his impatience if not disgust in this connection. In a characteristic letter that has come down to us among the writings of that great Ameri-

can is one in which he declares that the disciples of the different schools and theories of medicine "succeed each other like the shifting figures of the magic lantern; and their fancies, like the dresses of the annual doll-babies from Paris becoming, from their novelty, the vogue of the day and yielding to the next novelty their ephemeral favors."

Botanicals Have Survived and Improved

In the midst of all this subtlety, mysticism, and unrest, botanical drugs continued to offer nature's bounties to those who preferred the natural to the synthetic. Even those whose craving for the new in medicines caused them to forget the experience and accumulated wisdom of former generations had to admit, though perhaps with poor grace, that nature is ever constant and unchanging; that green plants, drawing from the rays of the Sun that precious something which sustains human life and without which man would perish and the earth become a barren waste, have substantially the same properties in every age; that though man himself may change and new ideas, beliefs, influences and prejudices

may cause him to drop botanical drugs and pick up synthetic chemicals instead, there is every reason to believe that botanicals are just as capable of beneficial use by us today as by our ancestors of many generations ago. As a matter of fact, our modern methods of harvesting, preserving, curing and blending botanicals have greatly added to their potency and medicinal strength, so that we of the present age have good reason to expect botanicals to do more for us than they were capable of doing for our forefathers. How strange, therefore, that some individuals continue to expect less of botanical drugs and medicines when they really should expect more from them.



"FAITH CURES"

One of the severe critics of Astrology in medicine, as it was practiced in his time, was Pliny, the younger, who apparently had little use for the idea of treating the sick according to the course of the stars.

In the first centuries of the Christian Era the influence of Theosophy on the schools of medicine was marked. It seems to have been generally believed that to the Apostles had been transmitted the ability to overcome all diseases by the laying on of hands or through the use of holy oils and ointments. And it came to be

believed that the Apostles, in turn, had passed along to the Elders in each community the healing powers with which they had been endowed by their Master. Thus the Apostle James: "Is any sick among you? Then let him call to his aid the elders of the assembly and let them pray for him, anointing him with oil; and the prayers of the faithful shall heal the sufferer."

At such low ebb was medical knowledge in the Roman Empire that when the great plague of 543 destroyed half the population of the Empire, it is said

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there were no physicians capable of making any medical record of the terrible disease for the benefit of posterity.

During the so-called Middle Ages the art of healing shared with all the other arts the general state of darkness which enveloped the world and all but blotted out civilization. Out of the custom of relying upon

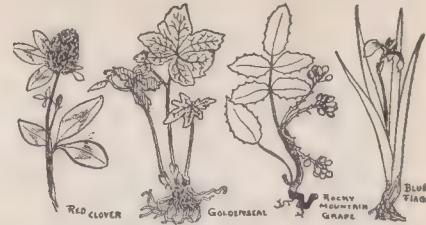
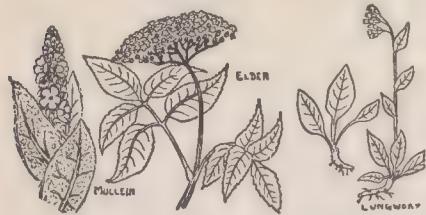
monks and priests for the relief of the sick through their supposed spiritual powers, including the use of sacred relics, developed the "faith cures" that have come down to our own generation.

After all, we are not so different from earlier generations as we think we are.

BOTANICALS "WEAR WELL"

There are many strange and interesting facts associated with the earlier use of drugs, which seems to have begun at least four thousand years ago. Of necessity, all substances first used as drugs were obtained from the botanical, animal or mineral kingdoms, and chiefly from herbal sources. The British Museum contains a stone tablet dated 3700 B. C. which bears an inscription that gives directions for the compounding of a remedy for a head cold in the form of an inhalant; and right here it is pertinent to remark that today, fifty-six centuries later, the medical profession still is in the dark as to the true cause or causes of the common or head cold which afflicted the ancients. If the doctors themselves have been unsuccessful in more than five thousand years of effort in trying to find

some explanation upon which they can agree as to the origin of the common cold, and after all these centuries are still quarreling among themselves as to what will relieve colds, should the public be blamed for resorting to self-medication in connection with this ailment? In view of the acknowledged failure of the medical profession to deal with the common cold, after battling with it down through the ages, is it not reasonable to assume that the good old home remedies our forefathers prepared from botanical drugs are just as good if not better than the medicines that could be obtained through a doctor's prescription? Those old herbal medicines must be good, since thousands of years of research apparently have developed nothing better for the purpose.



"A PHYSICIAN SHOULD BE THE SERVANT OF NATURE"

"The best of our popular physicians are the ones who do the least harm. But, unfortunately, some poison their patients with mercury, and others purge or bleed them to death. There are some who have learned so much that their learning has driven out all their common sense, and there are others who care a great deal more for their own profit than for the health of their patients. A disease does not change to accommodate itself to the knowledge of the physician, but the physician should understand the causes of the disease. A physician should be the servant of Nature, and not her enemy; he should be able to guide and direct her in her struggle for life, and not throw, by his unreasonable interference, fresh obstacles in the way of recovery." (Paracelsus.)

A "servant of nature" can give most effective aid by using herbs and medicines provided by nature herself—that are in harmony with and agreeable to nature. It is not necessary for the physician, save in a

comparatively few instances, to go outside nature's own wonderful laboratories for his supplies. He need not take the time and trouble to search field and forest for herbs or botanicals, nor concern himself regarding the freshness, cleanliness or purity of herbal drugs and medicines, for we are in a position to supply his every need in this connection with promptness and assurance. Every purchaser from us, whether he is a physician or layman, may rely implicitly upon getting drugs and medicines that are exactly what we say they are. Our gradual growth to our present proportions and rank, as perhaps the largest establishment of its kind in the world, has been due to our consistent policy of fair-dealing and honest service. We respectfully solicit your patronage that we may have the opportunity to make you acquainted with the virtues of botanicals, if you are not familiar with them already, and to demonstrate to you in a practical way our business methods.



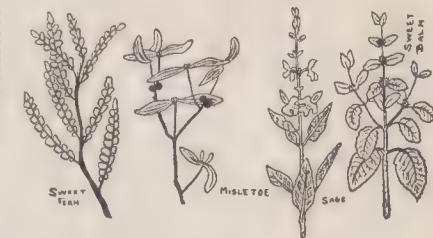


LEGENDS, AND THEIR USES

Some Ancient Formulas

Various and ancient formulas for a variety of medicines have come down to us. Perhaps our most valuable source for this information as to the medicinal lore of the ancients is a scroll or papyrus taken from between the knees of a mummy in 1552 B. C. at Luxor, Egypt, but various discoveries have added to our knowledge of early drugs and medicines and their uses. It is of interest to note that the maladies with which we are afflicted in this modern age also menaced the ancients. Mention of such diseases as Small Pox, Diphtheria and Measles is found in the records of early civilization. And of even more significance is the fact that almost countless generations of man have been able to find only two or three medicines that properly may be called specific for particular ailments. As to all other diseases there are no known cures, in the strict sense of that term, so that in treating practically all the diseases which afflict mankind it is possible even today to give only a degree of relief or palliative treatment. Yet the medical profession, jealous of the activities of distributors of drugs and medicines for home use, are seeking to have Congress enact a law which will forbid

the mention, by any distributor of a drug or medicine intended for home use and self-medication, of any ailment of which that drug or medicine is not a cure. Why give the medical



profession a monopoly in the treatment of disease and require a sick person to call a physician for the relief of ailments which the doctors must acknowledge they cannot cure or give permanent relief? Is it not quite possible that the layman himself, through use of a reliable home remedy that has been handed down to him through his own family, or which represents a prescription of some physician who has used the medicine with satisfaction in his practice, will be able to obtain a substantial degree of relief without the necessity of paying a doctor for a prescription and then paying the druggist for having it filled at least twice the price of that very medicine when purchased direct from a proprietary medicine distributor?

CONSTIPATION

Most people have a general idea of the necessity of keeping the bowels open or active, but few fully realize how vitally important this really is. Perhaps this is due to the fact that the average person without medical training has no occasion to consider just what happens when the bowels fail to do the work intended by nature.

If the bowels function properly and promptly expel from the body the waste matter remaining after the valuable and nutritive portions or elements of the food have been absorbed, those waste products have no time to develop toxins and do harm. But when waste matter remains too long in the bowel tract, trouble is brewing. Then it is that toxins or impurities develop in this residue, those toxins find their way into the blood stream and are carried to every part of the body, just as have been the valuable extracts or elements of the food.

Such bowel sluggishness, if neglected or allowed to persist, may have other serious consequences. In nature's scheme or system for eliminating waste products from the body, the bowels are assigned heavy duties, but other organs also have important eliminative work to do. In this connection the part played by the

urine is at least equal to that of the bowels, while the pores of the skin and the lungs also assist in this work of elimination.

Now when all these organs of elimination are functioning properly and each is doing the particular part assigned to it by nature, the important work of elimination is being well done. In such favorable conditions the menace of constipation is banished and the danger of faulty elimination is removed. And this obviously goes far toward the daily fitness and general well-being of the happy individual who is fortunate enough to enjoy such a full measure of elimination.

But when the bowels become and remain sluggish, they throw an added burden upon the other organs of elimination, for nature seeks to carry on the vital work of elimination in some way. This may mean that relief will call not only for a laxative medicine to promote bowel action, but a diuretic medicine to stimulate the flow of urine, so as to improve elimination through bowels and kidneys. This condition also may indicate use of a good diaphoretic medicine to open the pores of the skin and assist elimination in that way. As a matter of fact, the eliminative work of our skin pores is far

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heavier and more important than many of us fully realize.

It is common knowledge that our mode of living in these exacting modern days has much to do with our problem of constipation and elimination. We eat highly refined and largely demineralized foods, instead of the plain and coarse diet of pioneer days. We are irregular in our habits and under the constant strain and stress of this rapid age, we still have recourse to those good old-fashioned and natural remedies gathered from nature's own laboratories—the fields and the forest.

It is doubtful if the great usefulness and value of botanicals have been better or more convincingly demonstrated than in the conditions associated with faulty elimination. Here alone the work done by botanical drugs entitles them to prominent and permanent place on the shelves of our family medicine chests. The best explanation of their general success here and elsewhere probably is that botanicals not only stimulate the functions of the chief organs of elimination but do so gently and without upsetting effects. Botanicals work

with rather than against nature. They are agreeable to natural processes and functions, for they are a part of nature herself. Man has succeeded in developing with human hands chemical substitutes that promote functional activity of the organs of elimination, but who is bold enough to say that he has improved upon nature in this respect? Can an artist paint a better sunset than nature gives us?

For relief of bowel sluggishness such as has been described, we offer a variety of prepared medicines as well as of botanicals with which laxatives may be made at home.

Your selection of botanical laxatives may be made from this list: Sacred Bark, Senna, Psyllium Seed, Bran, Sea Weed or Agar, Butternut Bark, Turtlebloom, Mandrake Root, Culvers Root, Virginia Snake Root and Boneset.

The prepared formulas are: For children—Fig Candy Laxative No. 97, No. 2033 Vitamol Wafers and No. 99 Calumet Laxative medium tablets. For adults—No. 99 Tea or Tablets, No. 555 Double Quick Tablets and above all, No. 2033 Vitamol Wafers.

A CALL TO ARMS

Our frequent references to early "civilization" are not to be understood as indicating that the use of drugs has been confined to peoples having undisputed claim to classification as "civilized." Every savage tribe has had its own *materia medica* and its more or less peculiar theories regarding relief of physical ills. No tribe seems of such low mentality as to be incapable of acquiring some knowledge of the medicinal virtues of the herbs with which nature has supplied mankind. Perhaps the explanation is that self-preservation is instinctive in the human race as throughout the animal kingdom and that man naturally has looked to nature for everything essential to his preservation and well-being. Nor has man looked in vain, for nature ever has been kind to him with respect to drugs and medicines as in so many other ways.

Nature is still very much on the job and better prepared than ever before to supply man with the natural drugs essential to his ordinary and everyday health requirements. The

trouble is that there are those who, for one reason or another, are trying to improve on nature and persuade their fellow men to lay aside the botanical herbs that have been household remedies for generations. Whether this campaign to drive botanical drugs off the market is going to succeed depends upon the attitude of the public. The enemies of botanicals are counting upon the apathy of the public in this connection and are hoping in effect to outlaw herbal medicines before the people realize that they are being deprived of their inherent right of self-medication. It is up to the friends and users of botanicals, as well as of all those who appreciate the value of the right to treat one's own ills with medicines of one's own choice, to come forward promptly, now that the call to arms has been sounded, and gain for herbal medicines a permanent place in the sun, from whose rays green plants draw that mysterious something essential to human existence.

No. 625—Price, 25c.

Wild Flower Sachet Perfume—A combination of wild flowers of delicate and lasting fragrance, suitable to place in bags to perfume clothing, etc. These flowers are not ground up into powder. They are dried whole, just as they came from the fields and prairie.

No. 932—Price, \$3.00 per oz.

Fragrant Herb Perfume—Here is something new and different. A most delightful perfume made from fragrant herbs of the Orient and countries of southern Europe. A perfume never to be forgotten. Strong and lasting, yet so delicate as to suit the most refined tastes.

STATEMENT OF OUR POLICY

What We Are and What We Aim to Do

We guarantee every box of botanicals purchased from us to be strictly fresh last season's crop and full strength, and will cheerfully refund purchase price if the goods are not satisfactory. In no case do we guarantee remedial values, for the reason that we do not treat people, employ no doctors, and

are not selling botanicals for remedial values alone. We act merely as a supply house and aim to handle every root, herb, bark, seed and flower grown, regardless of their remedial value and use. The main points we emphasize are purity, full strength and non-poisonous botanicals.

BOTANIC PHYSICIANS OR HERBAL DOCTORS

At the time the English Colonists left their native land for the shores of America, there had developed in England a group of practitioners known as Botanic Physicians or Herbal Doctors. In fact, those physicians appeared to have constituted a flourishing school of herbal or botanical medicine. So strong was the botanic influence at that time in the field of medicine that it extended itself to the American Colonists and was in part responsible for the strong impetus then given to herbal drugs in America.

Herbal Drugs Handicapped in America

While botanical drugs thereafter rose to new heights in England, resulting in the formation of a Medico-Botanical Society, many obstacles have been thrown in the path of herbal drugs and medicines and many handicaps imposed upon them, both in England and the United States, through

Eventually there developed an American school of botanic physicians and an American Botanic *Materia Medica*.

As time passed the study of botany in the United States had so progressed that the influence of American *Materia Medica* of the vegetable kingdom and of our American school of botanic medicine began to be felt in England, from whence it had sprung. Thus the child came to the aid of its parent and made possible further progress in fields botanical.

opposition of the older schools of medicine. This opposition has manifested itself in various forms. One of the most insidious devices employed by some factions or groups in the older schools of medicines (for not all the members of the established or dominant schools have been in sympathy with the idea

of harassing and handicapping herbal practitioners or users of botanical medicines) has been to bring about the passage of laws, which, though perhaps innocent upon their face or to a person unacquainted with legal language, are designed to place unreasonable restrictions upon the distribution and sale of botanical drugs and medicines. So far have these efforts succeeded in the United States, where personal liberties and individual rights seem to have been on the wane in recent years, that today as we shall see the manufacturer of botan-

THE FIRST DRUG STORE IN AMERICA

We are told that when in 1620 the Pilgrims landed on the lonely shores of Plymouth, Massachusetts, there to take up their struggle for existence in the new land, they had with them, Dr. Samuel L. Fuller and Giles Firman, a pharmacist. Those two men appear to have set up in the colony an infirmary which gradually assumed the character of a distinctive pharmacy and doctor's office. Twenty-six years later or in 1646 there was established at Boston, only a few miles away, the first drug store in America, in which we may be sure botanical or herbal drugs predominated. In fact the United States, at one time or another, has made many valuable con-

tributions to the herbal *Materia Medica*, for not a few medicinal drugs are indigenous to the North American Continent. As an example that may be cited, the Golden Seal or *Hydrastis*, well known for its beneficial use on the mucous membrane and which commands perhaps as high a price as any of our so-called vegetable drugs. It has been said that our Pacific Coast is the only place in the whole world in which Cascara Bark or Chittam grows in a natural state. Among other natural drugs which may be referred to as native American products is the well known Foxglove or *Digitalis*, and this list might be greatly lengthened.

Herbs Are Natural Drugs

The average person seldom appreciates the fact that growing in his locality, and even in his own field or yard, there are many medicinal herbs or botanicals, which nature has placed at his very feet. How prone is man to overlook or disregard that which is near at hand and to wander afar in



search of inferior substances, and this tendency is demonstrated no more strikingly than in his folly in rejecting the natural plants, roots and barks that are to be found in nature's own inexhaustible laboratories for those synthetic substitutes with which the drug stores of today are filled. If botanicals were more difficult to obtain or more expensive to procure, perhaps the public would manifest more interest in their preservation, for there always is excitement and stimulus in the quest for the unobtainable. Surely herbal drugs were created for a purpose, and that purpose

should be as clear to us today as it was in days of old. The plain truth is that the virtues of botanical drugs would be just as evident to us as they were to our ancestors if we would but rouse ourselves to a realization of what is going on around us. Our difficulty is that we too often allow others to do our thinking for us and to impose upon us, without our appreciation of the fact, things we would not choose if we relied upon our own judgment and followed our own convictions. This is peculiarly true as to drugs and medicines. If we stopped to compare the natural with the synthetic, the herbal with the chemical, and to reflect upon the fact that nature never loses her powers and effectiveness but maintains a constant supply of botanicals within our easy reach, we should have no difficulty in arriving at a decision that the remedies that were good enough for our forefathers are good enough for us. But we are so busily engaged in the complexities of this hurried age, that we accept with little thought the attractive offerings of those who serve various purposes in exploiting man-made drugs.



THE INDIAN'S MATERIA MEDICA



If we again turn our discussion of botanicals back to colonial times we shall find additional evidence of the fact that the Indians then encountered by our forefathers had a very inclusive herbal materia medica. It is evident that the Red Man's close communion with nature had not been in vain

and that he had learned many of the valuable secrets of the field and forest, some of which up to that time had escaped the notice of his white brother. In his interesting History of Medicine, Garrison thus refers to the practices of aborigines in general and to the American Indian in particular:

"We find that savages in different countries knew instinctively the most fatal arrow-poisons—curare, ouabain, veratrin, boundou—as well as the virtues of drugs like opium, hashish, hemp, coca, cinchona, eucalyptus, sarsaparilla, acacia, kousso, copaiba, guaiac, jalap, podophyllin and quassia."



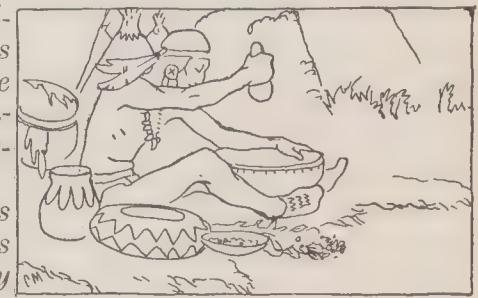


LEGENDS, AND THEIR USES

"Not to go further than our own country, we find the North American Indians aware that arbutus is 'good' for rheumatism; lobelia for coughs and colds; wild sage tea, golden seal, flowering dogwood, and prickly ash berries for fevers; elder, wild cherry, sumac for colds and quinsies; wild ginger, ginseng and euphorbia for digestive disorders; inhalations of pennyroyal for headache; sassafras or violet leaves for wounds and felons; and the roots of sassafras and sarsaparilla for 'cooling and purifying the blood.'

"In 1535-36 the Iroquois around Quebec, as Jacques Cartier relates, treated scurvy in his crew very successfully with an infusion of the bark and leaves of the hemlock spruce; and the French at Onondaga in 1657 found the sassafras leaves, recommended by the same tribe, 'marvelous' for closing wounds of all kinds. The 'Materia Medica Americana' (1780) of the old Anspach-Bayreuth surgeon Schoepf, who came over with the Hessian troops during the war of the Revolution, shows that the Anglo-Saxon settlers in the New World had already learned many wrinkles in herb-therapy from the red men, in

addition to the very rich medical folklore which they undoubtedly brought with them from old England. The plant lore of rural England, included a knowledge of the virtues of camomile, sage, and dandelion teas as laxatives; of marjoram and primrose root for headache; of wormwood as a tonic; of valerian for the 'nerves'; of



agrimony and parsley for jaundice; of meadow saffron (colchicum) for gout; of fennel, eyebright (euphrasy), and rue for bad eyesight; of malefern and peach leaves for worms; of tansy as a vermifuge and abortifacient; of horehound, marshmallow or candied elecampane for coughs and colds; of foxglove as 'the opium of the heart'; and of moonwort, alehoof, and goldenrod. English poetry and folklore are full of references to thyme and marjoram, rosemary and rue, mistletoe and ash."

STATUS OF BOTANICALS PRIOR TO 1906

The American Colonists, of course, added to the botanical knowledge that they had brought with them from their native lands all the medicinal lore of the Indians. In this way herbalism took such a strong root in American soil that thus far it has resisted the storms of dissension in the ranks of the medical profession and the savage attacks of those who would supplant all natural drugs with synthetic laboratory products. But those storms and assaults have stripped herbalism of some of its leaves and branches, have hollowed its once mighty trunk and today are striking at its very roots. It is not yet too late to save the tree, but its friends must unite in the common cause of its defense. There is no time to be lost.

In all these circumstances it was not at all strange that botanical or herbal drugs were so freely accepted in official quarters in the early years of our national history. In those days botanicals stood squarely upon their merits and natural

virtues, practically free from the undermining influences that later were to challenge their supremacy in the field of drugs and medicines and ultimately, as we shall see, even to threaten their complete repudiation as therapeutic or medicinal agents.

The commanding position then occupied by botanical drugs caused them to be given wide recognition in the first edition of the U. S. Pharmacopoeia and in several subsequent editions at ten-year intervals. In fact, botanicals continued to enjoy fairly high professional favor down to 1906. We say "professional favor" because botanical or herbal medicines have not lost popular favor to this day, nor is there any prospect that the public ever will lose faith in natural remedies. The danger is that the public will be unable to obtain herbal drugs and medicines because a determined effort is being made to drive those drugs and medicines off the market in these United States.

It's Up to the Public

If you value the privilege of treating your own common ailments in your own way, if you wish to preserve your right to choose your own medicines and to use them in your own home, if you feel it would be a ca-

lamity to have herbal or botanical remedies driven off the market, then read in this book of the campaign that is being waged against natural drugs and act.



STATUS OF BOTANICALS SINCE 1906

In 1906 Congress enacted what is known as the Food and Drugs Act, for the Federal regulation of the sale of foods and drugs. Nearly all of our States since have reenacted this statute for local purposes, so that today substantially the same requirements with respect to the sale of drugs and medicines must be observed in both interstate and intrastate business or commerce.

The Food and Drugs Act makes frequent mention of drugs "recognized in the United States Pharmacopoeia or National Formulary," but does not require that any drug, as a condition to its sale to the public, shall be so recognized by those two publications or either of them. In fact, Congress impliedly recognized as

worthy of designation and consideration as a drug substances not mentioned in either the U. S. Pharmacopoeia or National Formulary. All that statute contemplates is that a manufacturer of any drug or medicine, whether it be herbal or chemical, shall tell the public the truth about it. If the U. S. Pharmacopoeia or National Formulary contain standards of strength, quality or purity for any herbal drug, the manufacturer or distributor of such a drug must observe those standards or tell the public in what way or to what extent his product differs from the official standards.

But, while it is clear that Congress never intended any discrimination against botanical or herbal drugs and plainly

contemplated that they should be given equal opportunity with synthetic or chemical drugs, the Food and Drugs Act has been misused as an instrument for handicapping natural drugs and gradually causing their displacement by synthetic drugs.

The swing of the pendulum of professional favor from natural or herbal drugs and medicines toward laboratory products or synthetic preparations, which began shortly after the passage of the Food and Drugs Act of 1906, has been particularly marked during the last ten years. But let it be carefully noted at this point, in anticipation of our demonstration of the facts in later pages of this book, that this substitution of synthetic products such as acetanilid, aspirin and mercurochrome for those botanical or natural drugs so long employed for similar purposes, has been due to no sudden loss of medicinal virtues by herbal drugs but to the effective promotion of laboratory products. Nature has not failed mankind at all but has continued to offer him even better and more effective herbs than were possible to his ancestors in the absence of modern methods of preparation and distribution.

However, the wide publicity given to synthetic drugs through high-pressure advertising during the last decade, the flood of free samples to physicians of laboratory products accompanied by strong appeals to the age-old urge toward the new and different, plus the failure of friends and users of botanicals to counteract this propaganda and compel acknowledgment of the medicinal constancy of herbal drugs since the dawn of time, have contributed to the present unhappy status of botanicals. It has been mistakenly assumed that any substances like herbs, that have been in use since the cradle days of the human race, need no advertising or organized defense. Now at last, with their backs to the wall, the defenders of herbal drugs appreciate the fact that there is no such thing as perpetual motion in any line of human activity, no momentum that is strong enough to carry on forever without a push and a bit of oil now and then.

NOTE: Remember that natural remedies in the form of herbal or botanical drugs are milder in both action and reaction; that they therefore are more easily and readily absorbed and are far less upsetting to the system in their after effects or reactions. On that account herbals are particularly adaptable to beneficial use by old people and children. They are natural medicines and therefore act and react agreeably to nature.

HEADACHE

Closely associated with those conditions of our modern civilization which have just been described under the head of "Constipation," is a common type of Headache. We are not referring to head conditions resulting from serious underlying causes or organic diseases, but to what the layman knows as an ordinary headache.

Headaches of this kind frequently are due to faulty elimination. When the bowels fail in their intended or natural function, this failure sets in motion a train or series of unhappy results. Gas Pains develop. The trouble spreads to the stomach, which is a nerve center. A feeling of heaviness and dullness gradually come on and there is what is popularly known as a Sick Headache.

The thing to do, of course, is to improve elimination, settle the stomach and provide relief for the headache while nature is speeding up her work with the help that has been given.

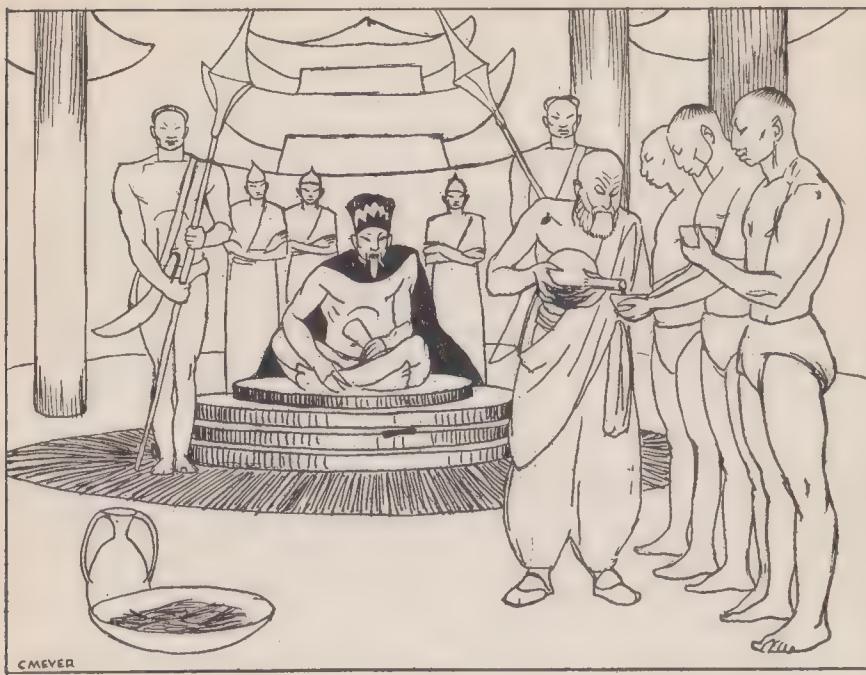
Under the head of "Constipation" in this book, we already have given a complete list of laxative medicines and botanicals which afford a wide range of choice. In connection with headache we particularly recommend our No. 99 Calumet Herb Laxative Tea, for its mild and soothing influence.

Our offering of bitter tonics or stomachics to tone up the stomach and improve the appetite in these conditions includes these botanicals: Gentian Root, Wormwood, Angelica, Juniper Berries, Elecampane, Black Alder, Rhubarb, Wild Cherry, Strawberry Leaves, Red Raspberry Leaves, Balmony. The prepared formulas are: No. 10 Father John's Stomach Tea, No. 11 Father Bernard's Stomach Tea, No. 12 Hop Bitters, No. 99 Calumet Herb Laxative Tea and No. 999 Calumet Root and Herb Compound.

To relieve pain in this type of headache we offer our Anis-tan Tablets. In addition, we highly recommend our No. 604 Calmative Tea which has a most soothing effect.

If you have some favorite combination of your own for the relief of headaches of the type we have described, just make out your list of herbs or botanicals and let us supply you with them. Remember, you can get a generous quantity of any herb from us for only twenty-five cents—and in every instance the herbs you buy here are fresh and clean. In that way you can make your own medicines very easily and cheaply, which means a lot in these days.

Try our herbals and become a satisfied customer.



C. MEYER

The Chinese Method

The Chinese idea is that the true function of a physician is preventive rather than curative, that the art of medicine consists in keeping disease away and that medical attention should be regarded as a form of insurance; that if illness comes to a patient, the physician should be responsible for the handicap, just as an insurance company might be under a health policy.

In China every aspirant for the title of physician is allowed wide freedom of choice in his methods of preparation for the role, but results are expected of him. If one of his patients

dies, as a result of his incompetence, he must give up for all time the practice of medicine, upon the theory that he is not a safe person to be entrusted with the health and lives of the people in his community. Where the facts and circumstances indicate that the intention of the physician in such a case were not in keeping with the sacred character of human life, he is subjected to the extreme penalty meted out to all others who take life in various ways. On the other hand, the physician merely pays a fine in cases where his intentions were better than his

LEGENDS, AND THEIR USES

judgment and medical ability. But on account of medical incompetence in China, whether the physician was wilful, reckless, indifferent or incapable, that physician is forced out of

the profession and the public protected from further danger at his hands. Maybe there is some logic in this Oriental point of view.

MA HUANG—A Chinese Medicine Over 5,100 Years Old

Ma Huang was one of the hundred herbs tested by the Chinese Emperor, Shen Nuang, over 5,100 years ago. This Chinese Emperor, as can be assumed, had unlimited means of testing roots and herbs on human subjects. Also he had all

Chinese emperor highly esteemed Ma Huang as a remedy for Asthmatic attacks and Bronchial Spasms, as a cough sedative, circulatory stimulant, diaphoretic and tonic to the reproductive organism.

Now, after 5,100 years our chemists "discover" (?) a substance in Ma Huang which every physician is now using in the treatment of these ailments, and they call this drug Ephedrine. Ask your druggist or physician, and if he knows, he will tell you that Ephedrine is derived from Ma Huang. Now comes the most interesting part: Ma Huang is nothing more or less than our Mormon Valley Herb. Mormon Valley Herb has been one of our best sellers for these ailments for twenty years. It is most clear to all that we were exactly twenty years ahead of these scientists. In another twenty years the "Scientists" will discover another wonderful substance in an herb that we are selling right now, and have been selling for many years, and which is at present considered inert or quite useless—watch and see.



MA HUANG

of the knowledge of the experiments of previous emperors and medicine men, and this

THE HARDIHOOD OF BOTANICALS

The wonder is that, in the face of all the difficulties thrown in their path and notwithstanding these numerous handicaps and unwarranted restrictions, botanical drugs and medicines have retained so

much of the ancient favor and prestige. Their ability to withstand these heavy assaults and successfully uphold the test of the ages can be attributed to only one thing—their inherent natural merit.

NATURAL DRUGS IN A NATURAL STATE

As explained elsewhere in this book, Rafinesque was one of the greatest champions and defenders of natural or botanical remedies. Today, when medicine is under such strong influence from the advocates of laboratory products, and at a time when the stock argument advanced against herbal drugs is that the active principles of so few of them have been isolated and identified by chemical analysis, it is of peculiar interest to note that Rafinesque met and destroyed substantially the same contention in his day, saying: "The active principles of medical plants may be obtained in a concentrated form by chemical operation, and their effects are then stronger and quicker, but less congenial to the human frame than in their natural pristine condition."

Rafinesque strongly believed in the idea that natural drugs in a natural state were most compatible with nature and most likely to be of service as

an aid to the restoration or preservation of natural functions. Among other things in this connection he said:

"There are several modes of effecting cures by equivalent remedies; but vegetable substances afford the mildest, most efficacious, and most congenial to the human frame."

"Few plants possess a single (uncompounded) property, but many are commonly blended together in the same plant."

"Different parts of a plant have often separate qualities and properties."

"Medical substances becoming more powerful by admixture, those which enter by vital action into the organs of plants are rendered more powerful by intimate combination."

"By combining several medical plants in prescriptions, their effect is increased."

"Nauseous or noxious plants may be rendered grateful and available by combination with others of a different character."

"But all combinations must

LEGENDS, AND THEIR USES

either coincide, or correct each other, or else they are superfluous and useless.

"When too many substances are mingled, or several that do not coincide, they often impair one another."

"The combining of substances which exert a chemical action on each other must be avoided unless a peculiar medical result is required."

The contention of Rafinesque

BOTH FOOD AND MEDICINE

It was most natural and sensible that man, having found in plants a source of food supply essential to his existence when in health, should turn again to nature when afflicted with illness. Having been fed out of the bounty of nature, primitive man naturally felt that he could expect aid from the same source in the relief of his cuts, bruises and ailments. Nor did he thus seek in vain, as we know, for in the plants, shrubs and roots and barks of the forest and fields he found effective remedies for his daily needs.

Today, centuries later, we too could find natural drugs for the relief of our common and ordinary ailments if we would only do the natural and sensible thing and turn to nature. The fault is ours alone, for nature has not lost her friendly interest by any means. She

to the effect that natural drugs are agreeable to nature, strikes us after all these years as agreeable to reason. Why go outside Nature when such action is unnecessary? Remember that one who looks all through the wood often returns with a crooked stick, although many straight sticks were close at hand. Be natural in your use of drugs and medicines as in other ways.

has demonstrated to former generations, as she is willing to demonstrate to us if we will but look and investigate, the medicinal powers and uses of natural or herbal drugs. Our difficulty is that, suffering from the effects of this restless age, and yielding to the impulse to change the old for the new and novel, we cast aside the household remedies of our forefathers and experiment with one after another of the medicinal preparations that come from our modern laboratories in a never-ending stream. The favorite medicine of today may be supplanted tomorrow by one more attractively packaged or better advertised. We accept substitutes without stopping to consider whether it would be to our advantage to insist on the real, the natural instead of the synthetic.

If we stopped to think and to compare, we should note a good many real advantages in natural or botanical drugs. One is that they usually are far less upsetting in their after effects, due to the fact that they act and react agreeably to nature.

Another decided advantage in herbal drugs in these days is that they are inexpensive. No experience or peculiar skill is required in the preparation or compounding of the common and simple herbs generally used for various medicinal purposes. For only twenty-five cents you can procure from us a generous supply of any ordinary herb. All you have to do

is choose your combination from our list, send for your herbs and then mix or blend them according to our instructions. In this way you will be sure to get an effective remedy, for we sell only fresh herbs.

For those who do not care to compound their own herbs but to buy the remedies ready for use, we offer a complete line of reliable medicines, backed by our long experience and well-established reputation for fair dealing. Whether you prefer to make your own medicines or to purchase them in prepared form, we are ready to serve you promptly and carefully.

NATURE ALONE CAN "CURE"

There are very few specifics for diseases and even a doctor cannot cure. To nature alone belongs such curative power, as was observed by one of our Federal Courts in these words: "It is generally known and the evidence shows that with very

few exceptions there is no known cure, using that word strictly, for any disease. Nature, supplemented and aided by proper medicines, careful nursing and proper diet does the work of curing."

No. 626—Price, 50c.

Rose Jar Buds and Petals—These are dried Rose Petals and Buds of selected very fragrant varieties. They are especially adapted for making Rose Jars. They are placed in fancy jars or vases in alternate layers with common salt. First sprinkle 2 teaspoonfuls of salt in the bottom of jar, then a layer of Rose Petals and Buds—then a thin layer ($\frac{1}{4}$ inch) of salt—and so on. The last layer should be rose buds and petals, no salt. Such a jar will perfume the room for months.

No. 627—Price, 25c.

Fragrant Roots—These consist of a number of fragrant roots cut up small. They may be placed in bags and hung up in clothes closets or laid in drawers. Their refreshing fragrance will be imparted to everything in the closet. Very delicate and delightful, but of not much value to keep away moths, for this purpose see our Moth Chaser. Violet is the predominating odor of these fragrant roots, due primarily to the presence of Florentine Orris Roots.

FEVER FLOWERS

In Central America and Mexico there grows a plant commonly known among the Americans and foreigners as Fever Flowers, but which the natives call "Jamaica." The flower petals of this plant yield a most delightful thirst satisfying and cooling drink, very similar to lemonade. The name Fever Flower was undoubtedly given to this plant on account of its cooling effect in fevers. Recently a physician, who lived many years in these tropical countries visited with me and presented me with a quantity of these flower petals. My experiments, very limited up to this time, prove the value of this plant in allaying fevers. I

am of the opinion that these flower petals are rich in Vitamins A and B and certain minerals—and in another decade will be heralded by the medical profession as a wonderful new discovery.

The directions for using these flower petals are as follows: Place three to five petals in a glass of slightly sweetened water, allow it to stand an hour—and you will have a golden orange, cooling drink. It occurs to me that these flower petals could also be used in flavoring pies and custards. Send 25c for box of these flower petals. They will come in handy.

HOW TO ENCOURAGE BRIGHT EYES

The bright, clear eyes of childhood and early school days do not often outlast the days of our teens. But when you do find them in later years, particularly in a woman, how attractive they are! Whatever may be the physical defects of a particular person, he or she has a real asset in a pair of clear, bright eyes.

Of course, bright eyes are not the gift of nature to all her children, nor is it always possible to retain or restore their brightness, since general conditions of health or illness have an influence on the eyes. But it

is quite possible to assist nature in the care of the eyes and to make the most of one's natural gifts in this connection. Indeed, every individual owes it to himself or herself to present the best possible appearance, in these days when appearances count for so much, and the eyes are a most important part of that appearance and impression.

Your eyes play so important a part in the scheme of your appearance that they easily may overshadow all the other features combined. Sparkling eyes, dreamy eyes, kindly eyes

—they all have their appeal. Unfortunately, these modern high-speed days are hard on our eyes. The dust and dirt of this motor age make for tired and irritated eyes. At the end of a long journey, as at frequent intervals during its progress, there is need of the soothing, restful influence of a reliable eyewash that can be used with assurance. And naturally, as we think of these requirements and specifications, our minds turn to natural medicinal agents, the herbs with which we have been provided by nature herself, as were countless generations before us. We feel, most instinctively, that we safely may rely upon preparations which represent combinations of botanical or herbal ingredients; that they were placed at our disposal by an all-wise Providence for our various needs, as the occasion might arise. There may be an urge to the novel and experimental, induced by modern high-pressure advertising, but in the end we usually come back to the common and old-fashioned remedies of our forefathers.

The vital importance of your eyes to your well-being not only warrants but demands your constant care and protection of them. You should bathe your eyes with a good eyewash every day. That is the least you can do for those faith-

ful servants. Have your eye-cup and your solution, in the form of a wash or tonic, ready at all times and make use of it frequently. This soothes and rests the eyes, removing dust and dirt that may have been irritating them. This certainly is a daily habit you would do well to acquire and follow faithfully.

When you are particularly tired, moisten two bits of gauze with cold Eye Tonic solution and place them over your eyes, then lie down and rest for a few minutes. You will be pleasantly surprised at the beneficial effects. This not only will have a very soothing and restful influence but will have a tendency to improve the brightness and sparkle of your eyes. Just try this once and you will experience such good results that the daily habit will come easily.

Our Eye Tonic Formula No. 72 contains Eyebright, Fennel Seed, Chamomile, Golden Seal and other ingredients well known for their virtues in the relief of irritated and tired eyes. These time-tested herbs are carefully compounded and you may use this eyewash with both safety and satisfaction. Price 50c box.

No. 73 Price 25c. A very mild, bland and soothing salve for tired and irritated eyes. May be used freely in the most sensitive condition.



ANCIENT RECORDS DEALING WITH MEDICINE

Much light is thrown on the art of healing in ancient times by some of the records that have come down to us. Unfortunately those records are incomplete in some instances, but nevertheless are illuminating.

That the Assyrians had some knowledge of pharmacy, or at least considered pharmacy an art, that they used medicines which they kept on hand in specially prepared containers in the form of vases and jars, and that their theory of medicine was a curious combination of ideas regarding astronomy and magic seems clear. Of much interest in this connection is the following prescription:

"For the Eruptions and Humors Which Afflict the Body:

Fill a vase which has held drugs with water from an inexhaustible well;

Put it in a sheet of a reed, some date sugar, some urine, some bitter hydromel;

Add to it some

Saturate it with pure water (and)

Pour upon it the water of the (sick) man.

Cut Reeds in an elevated meadow.

Beat some pure date-sugar with some pure honey;

Add some sweet oil which comes from the mountain;

Mix them together;

Rub (with this ointment) the body of the (sick) man."

The records of Assyria and other ancient countries contain references to "The Tree

of Life," which seems to have been depicted in early sculptures with cones like those of the pine or other fir trees. Apparently this idea of the fir tree was due not only to the use of some of its products in medicine but to the fact that various cone bearing trees were employed as religious emblems.

In that part of the sacred book or "Vendidad" which is devoted to the art of healing, the deity Ahur'mazda thus speaks:

*"I, who am Ahur'mazda, brought into existence the healing plants, many and many hundreds, many and many thousands, many and many tens of thousands, and with them the one Gokarene—the white homa, or tree of life—giving health to the bodies of men. * * * I counteract sickness: I combat pestilence; I resist pain, fever, the putrid ulceration, the foulness, the malignant eye which the Evil*

Spirit inflicts upon human beings—every disorder and mortal ailment, every sorcerer and witch, and every malign influence."

We may judge of the qualifications and skill (or rather the want of them) expected of physicians in those times by these words of Ahur'mazda in the sacred book:

"They shall make trial on the daeva-worshippers first. If a beginner cuts a daevayasnian the first time and he dies, a second time and he dies, a third time and he dies, then he is incapable forever. The Mazdeans shall not consult him, nor shall he wound them by cutting. If they do try him, and he does them injury, he shall undergo the punishment for wilful injuries. But when a beginner operates thrice upon daeva-worshippers, and they recover, he is capable, and may heal Mazdeans by cutting as he sees proper."

MEDICINE IN THE ROMAN EMPIRE

The Romans seem to have been most suspicious of physicians for a long time and to have made it practically impossible for them to practice their profession in the Empire. Pliny tells us that for hundreds of years the Romans considered it best to do without physicians altogether rather than attempt the control of their ac-

tivities. He says that this exclusion of physicians by the Roman people extended "for a period of more than six hundred years—a people too, which has never shown itself slow to adopt all useful arts, and even welcomed the medical art with avidity until, after a fair experience, there was found ample reason to condemn it."

It is only fair to say that this suspicion and hostility against practitioners of medicine among the Romans undoubtedly was due in some degree to the activities of Greek physicians and to the general distrust of the Greeks by the Romans. Cato the Censor, according to Pliny, entertained these fairly typical sentiments in this connection:

"The race of Greeks is very vicious; and, my son, believe this as the voice of an oracle, that, with its literature, it will spoil everything at Rome. It will be worse still if it sends us its physicians. They have sworn among themselves to

kill all other nations with their medicines. They exercise their art for the sake of gain, and seek to get our confidence in order to be able to poison us the more easily. Remember, my son, that I charge you to have nothing to do with physicians."

It is of interest to note that Cato seems to have been a firm believer in home remedies and that his favorite drugs were of the vegetable kingdom. In his "Family Medical Treatment" he expressed quite freely his ideas regarding diet, a subject which he evidently considered as of prime importance in health and sickness.

LI CHUNG-YUN AND GINSENG

Li Chung-Yun of China, was born in 1677. In the year 1827 the Chinese government sent official felicitations to him on attaining his 150th birthday. In 1877 the government again congratulated him on attaining his 200th birthday. He has married and outlived twenty-three wives and is now living with his twenty-fourth at the age of 252 years.

Heliotrope Bouquet—Sweet, sweet, sweet, delightfully sweet—that's about the best description of this exquisite odor. You don't know what a sweet odor is until you get this. One of the rare high-priced perfumes on the market. Price, \$1.00.

Li has recently given in a Chinese university a course of twenty-eight lectures on longevity. Each lecture was three hours long. For two hundred years ginseng root has been a part of his diet every day. He advocates an herb diet and disbelieves in any exercise that tires. He seems not older than a man of fifty-two, according to those who have met him.

—From "Golden Age"

Oriental Bouquet—This exquisite perfume like the Sandalwood is distinctly of an Oriental type—blended with an odor that is both sweet and lasting. This is an odor you will not find elsewhere. It's different. Price, \$1.00.

ACHES AND PAINS

Of course there are aches and pains that go with various and serious maladies and underlying causes and which, on that account, cannot be relieved in any real sense unless and until the underlying disease itself is brought under control. On the other hand, there are many types of aches and pains that are due to occasional and temporary conditions, such as over-exertion, strain or exposure to the weather, and which may be relieved by prepared medicines without the services of a physician. Needless to say that, when referring to relief of pain in this book, we are speaking of only the second type just mentioned, for we do not claim the impossible or unreasonable for any of our products.

The belief seems to be fairly common, among those entitled to speak with some degree of authority, that faulty elimination sometimes may be indirectly responsible for aches and pains in various parts of the body. When there is undue delay in expelling waste matter from the bowel tract, or when other organs of elimination are not doing the work nature expects of them, toxins or impurities may find their way into the blood stream and be carried to all parts of the body, resulting in aches and pains

popularly known as of rheumatic nature or even referred to as Rheumatism.

Whatever may be the merits or demerits of this theory regarding circulating toxins, there is or can be no serious question as to the wisdom of keeping the bowels open and of promoting elimination through the urine by use of a stimulant diuretic to the kidneys, whenever the necessity of improving elimination of the waste products of the body is indicated. In using botanicals for such laxative and diuretic purposes, there is the satisfaction of knowing that they not only will do what is expected of them but that they are entirely harmless when taken as directed. They contain no chemicals that act harshly or with upsetting effect.

In our list of laxative botanicals are: Sacred Bark, Senna, Psyllium Seed, Bran, Sea Weed or Agar, Butternut Bark, Turtlebloom, Mandrake Root, Culvers Root, Virginia Snake Root and Boneset.

The prepared formulas are: For children—Fig Candy Laxative No. 97, No. 2033 Vitamol Wafers and No. 99 Calumet Laxative Medium Tablets. For adults—No. 99 Calumet Laxative Tea or Tablets, No. 555 Double Quick Tablets and above all No. 2033 Vitamol Wafers.

For use as diuretics to increase and regulate the flow of urine, thereby promoting better elimination through that agency of nature, we have these botanicals: Horsetail Grass, Bearberry, Dog Grass, Carrot, Gooseberry Leaves, Sweet Flag, Buchu, Horsemint, St. Johnswort, Water Pepper, Corn Silk, Plantain Leaves. The prepared formulas are:

No. 112 U. U. Tea, No. 132 Wild Swamp Root Compound, No. 15 Rocky Mountain Tea, No. 116 Bugleweed Compound and No. 129 Venetian Herb Tea for the Aged.

For external use, in all conditions where a good external application is indicated, we offer our Eucamint Pain Relief, which has a very soothing influence. Price 50c a tube.

CHAMOMILE TEA

German Chamomile is a tonic, excellent for the stomach and kidneys. The tea is made like ordinary household tea, and you simply steep a heaping teaspoonful of the flowers in a cup of boiling water for half an hour, strain and drink half cupful, hot or cold, upon retiring. It is entirely harmless and may be given to children. Externally, it is used in a strong decoction as a wash for eyes, and it is harmless for this, too.

In addition to its medicinal virtues, German Chamomile is known as a beautifier. One of our customers from Colorado writes that Chamomile tea has been used in her family for years, and that it will give one a complexion to be proud of, if taken internally as a tea.

Chamomile is also very beneficial to the hair—to give it lustre and bring out the highlights. For blonde hair, which is so apt to become drab and darkened without continual attention, Chamomile is extremely good. If it lacks the sheen and lustre, Chamomile tea is excellent. The hair is shampooed thoroughly. Then the final rinsing is with Chamomile tea, which is made by boiling a small handful of the Chamomile Flowers in a quart of water for 3 or 4 minutes, and straining through muslin or cheesecloth. Do not rinse out with cold water, let it remain on the hair as the herb is harmless and will not affect the hair structure.

We can furnish German Chamomile or any other root or herb grown at 25c per box.



ORIENTAL HEALTH HINTS

Even in the hurrying Occident there will be regret that Li Ching-yun, veteran resident of Kaihsien, in the Province of Szechwan, has been called from the scene of his activities, taken off in his prime at the age of 197 years. The cabled story carries no details as to the malady that cut short a useful life, and the inference must be that Li was a war casualty. His marital ventures were numerous, and he, with some eleven generations of descendants, no doubt formed an impressive military unit.

This is but half the story. In the Western world aging men are inclined to boast of their years, slyly adding a few birthdays, but it was different

with Li Ching-yun, who appears to have been cheating in the other direction. A professor in the Minkuo University claims to have found records showing that Li was born in 1677, and that on his 150th and 200th birthdays he had been congratulated by the Chinese Government—as well he might. Men who are old today declare that their great-grandfathers, as boys, knew Li as a grown man.

Dietitians should look into this. It is unlikely that during the first 100 years or so of his life Li Ching-yun knew anything about vitamins or calories; and certainly no radio instructions about setting-up exercises awakened him at the dawn. Early in life—either

LEGENDS, AND THEIR USES

about 1690, 1750, or thereabouts—this Chinese lad developed a penchant for collecting herbs, a habit that he did not shake off for a century; then he began to sell them. And here is the point: What did Li discover? Some neglected weed that contained the elixir of life? Some concoction which he took before breakfast, instead of the modern glass of—oh, well, no matutinal beverage of today will carry a man much past the century mark; so why make comparisons?

Whatever was his secret, Li Ching-yun kept it well. All he let the world know was that it was the part of wisdom to “keep a quiet heart, sit like a tortoise, walk sprightly like a pigeon, and sleep like a dog.” But that is merely camouflage.

THE FIRST INDIAN AUTHOR

To Sushrata goes the distinction of having been the first Indian writer to classify drug remedies. His theory seems to have been that disease comes to man through the fluids of the body. He believed that the dis-

Used Fresh Drugs Only

While Sushrata entertained some views regarding the body that now seem somewhat strange, he was squarely right in his insistence that only fresh

There are people without number today who have the tortoise temperament and whom it is almost impossible to awaken in the morning, but they pass on without any notice in cable despatches. “Walking sprightly like a pigeon” is among the arts lost by man, and it may be that loss of his favorite herb led to Li’s untimely taking off; which is a discouraging conclusion to the life story of a calm Oriental who watched the centuries come and go.—*Toronto Globe*.

NOTE: Remember that natural remedies in the form of herbal or botanical drugs are milder in both action and reaction; that they, therefore, are more easily and readily absorbed and are far less upsetting to the system in their after-effects reaction. On that account herbs are particularly adaptable to beneficial use by old people and children. They are natural medicines and therefore act and react agreeably to Nature.

tinction between the solids and the fluids of the human body was absolute and unchanging—that fluids never could be transformed into solids nor solids into fluids.

drugs be used in the attempted relief of the sick. Since practically all drugs of his day were of botanical or herbal nature, we can fully appreciate

the force of his contention that natural drugs must be in a fresh state if they are to do the work intended by nature. When herbs are first gathered and prepared for use they possess remedial virtues and possibilities that do not belong to them after long exposure to the air or after deterioration on the shelves of a drug store. Too much emphasis cannot be placed on the importance of freshness in botanical or vegetable drugs.

It is unfortunate that more care was not exercised in preserving intact the original writings of Sushrata, so that

we might have the benefit of his methods in compounding the various purgatives, diuretics, diaphoretics, alteratives and expectorants he employed. Of course he was mistaken in some particulars as to the precise manner in which those remedies operated in bringing about their beneficial effects, but his reliance upon herbal drugs seems well founded, notwithstanding all that we have learned about the human body and disease since his time. Then, too, modern methods of preparing and preserving botanicals have added to their effectiveness.

"TAKE THOU IN THE NAME OF JUPITER"

In connection with astrology, it also is of interest to note that in early times the belief was common that all herbs and minerals were under the influence of the stars, and that it was possible to determine, from the color of plants and minerals, just what particular planet or planets exerted influence over them. Thus, it is said, there originated the idea of so coloring some medicines as to make them resemble various natural or herbal drugs which were colored by nature herself.

Of course the light of education gradually has cleared

away the superstition that once enveloped the healing art, but it may not be denied that to this very day there hangs about medicine some of the air of mystery from which it never has been entirely free. Physicians still place in the upper left-hand corner of their prescriptions the sign "Rx," which goes back to the time when man worshipped the god Jupiter and signifies: "Take thou in the name of Jupiter."

And physicians still write their prescriptions in Latin, although that language is understood by only a comparative few in this generation.

COLDS

One of the really serious handicaps from which the business world suffers today is the common cold. Indeed, it is doubtful if any other single factor results in the loss of so many working days or has more disturbing effect on general efficiency. Even as a matter of dollars and cents, the common cold is a heavy burden.

But this commercial loss is only one item of the bill which the common cold presents to the public every year. Colds not only keep many men and women away from the office and factory for a surprising number of working hours in the aggregate, according to reliable statistics, but have a tendency to lower vitality and resistance in those who suffer from them. This is particularly true, of course, as to colds which are neglected or which are not relieved with reasonable promptness. In such cases coughs frequently develop and have a wearing effect, as is well known.

Then, too, the common cold is most unpleasant and annoying, in addition to its more serious features. The discomfort of a typical head cold, usually associated with congestion in nose and throat and often with watery eyes, earache and head noises, is so well known as to require no word picture here. Frequently there are

neuralgia and headache which brings severe suffering that is not adequately covered by such a mild word as discomfort.

As to the cause or causes of the common cold, there appears to be no generally accepted medical theory or belief. In fact, the only point upon which medical authorities may be said to agree in this connection is that the practical treatment and relief of colds is a problem which still challenges the profession.

But, while waiting for the medical profession to decide upon just what actually causes the common cold, we need not allow this ailment to go on unchecked or to subject us unnecessarily to the discomfort, suffering, or lowered resistance already discussed. Though we may not cope with the scientific theory, because there apparently is none as to colds, we can deal with and relieve the actual condition, which after all is the thing of most importance to those who suffer from colds.

There are a number of beliefs regarding the common cold, which, though not general or free from attack in professional circles, have gained respectable support because of their appeal to sound reason and hard sense. One such belief is that faulty elimination of the waste products of the

body is at least a contributing or aggravating influence in the development of colds. Therefore, many physicians agree that if the bowels are kept open and the other organs of elimination are doing their work properly, there will be less chance that a cold will develop or persist.

For laxative use in connection with colds, either before or after a cold has developed we have a wide choice of botanicals and prepared medicines without the harshness and upsetting after-effects of chemicals. They not only act gently,

but exert an alterative influence which gradually corrects the condition. As laxative botanicals we offer: Sacred Bark, Senna, Psyllium Seed, Bran, Sea Weed or Agar, Butternut Bark, Turtlebloom, Mandrake Root, Culvers Root, Virginia Snake Root and Boneset.

Among our prepared medicines we have No. 99 Calumet Laxative, in tea or tablet form, and No. 2033 Vitamol Wafers. Where more rapid action is desired, our No. 555 Double Quick Tablets may be used.

For children we recommend No. 97, our Fig Candy Laxative.

SPANISH REMEDY

Always on the alert for new and strange remedies I have found what I am certain is a very good treatment for rheumatic attacks. The information came to me through a Greek Herbalist and his American associate who reside in a section of California that was formerly entirely Spanish. The Spaniards, as we all know, were very efficient in herbal

treatments. The herb is Yerba del Pasmo, a favorite rheumatism remedy of the Spaniards. This herb, as my investigations have proven, is very rich in organic minerals. The herb tea is made by placing a teaspoonful of Yerba del Pasmo in a cup of boiling hot water and when cool, strain and drink one or two cupfuls a day. I can furnish this remarkable new herb at 25c per box.

Orange Flower Bouquet—Have you promenaded down a path through orange groves in California or Florida—with a bouquet of Roses, Lilaes and Violets on your breast? Then you will be reminded of that walk by this delightful perfume. Very lasting. Price, \$1.00.

Sandalwood Bouquet—Very much different from other perfumes in that it possesses a decided sandalwood odor—blended with a delightful pleasing flower odor. This perfume has been sold for as high as \$6.00 an ounce. Our price, \$1.00.



INDIAN WASN'T FAKER WHEN IT INVOLVED DRUGS

Aboriginal Medicine Man Is Held an Expert by Modern Chemist

By ELRICK B. DAVIS

The aboriginal American Indian medicine man was not the faker you may believe from reading pioneer-day fiction.

It is true that he did embellish his art with words and gestures that were only hokus-pokus (but what medical man, ancient or modern, doesn't in some fashion?) and:

"When it comes to the action of drugs, it is safe to say that he could readily have passed a modern state pharmaceutical board examination, if the questions were limited to the native medicinal plants of North America."

You have that on the word of Anton Hogstad, Jr., the botanical chemist, writing in the current issue of the American Druggist.

As a matter of scientific fact, the Indian knew the medicinal

value of nearly every useful plant on the continent and used them much as the college-trained doctor and pharmacist uses them today, Hogstad says. He has specialized in the study of native plants.

Of course, the red medicine man prepared his drugs crudely and those in one section of the continent did not know the valuable drugs available only in another.

But considering their facilities, they were competent chemists and physicians.

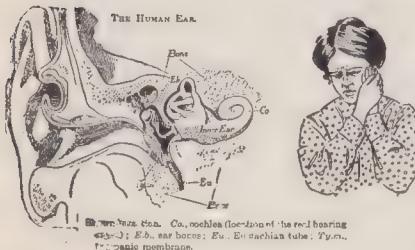
Another interesting point that Hogstad develops is that the Indians were not the exceptionally healthy, out-of-door lot that modern man thinks them. They had plenty of use for medicine.

They spent much of their time in winter and rainy sea-

sons in badly ventilated, smoky wigwams and huts; they were constantly subjected to climatic changes and their social practices were not model.

They had to use much medicine for colds, intestinal disorders, rheumatism and such ailments, and particularly for the treatment of wounds.

EARACHE



It is not at all unusual for a head cold to cause congestion and irritation in the outer ear, with great discomfort and often with temporary deafness or head noises. These same conditions also frequently follow exposure to the weather.

For relief of such conditions there are a number of botanicals which have long been in use with much satisfaction. Among those our No. 47 Earache Oil, price 50c, has no superior for general use. It is especially valuable in conditions of congestion and irritation in the outer ear when those

The red men even knew how to produce artificial sleep, Hogstad reports, and the refinements of their medical knowledge extended to the use of white roses steeped in warm water as an eye-wash.—Contributed by G. W., Pittsburgh, Pa.

conditions are accompanied by temporary deafness or head noises. In ordinary cases it will give prompt relief, and in any case it will do all that is possible for an ear lotion to accomplish.

Directions—Pour a few drops of our No. 47 Ear-Oil on cotton and place in the ear. If congestion in outer ear is severe, best results from the Ear Lotion will be obtained by applying a hot water bottle and resting in bed.

For head colds themselves you will find a variety of prepared botanical medicines in this book, as well as a number of favorite combinations reported by our friends who have sent in their pet recipes or prescriptions. Among them you will see many time-tested and reliable remedies from which to make your choice.

MAN'S INHERENT AND CONSTITUTIONAL RIGHT TO SELF-MEDICATION

(Excerpt from an address in defense of right to self-medication by Clinton Robb, an attorney of Washington, D. C.)

The privilege of choosing one's own remedies for one's own ills has been regarded, from time immemorial, as one of those natural or inherent rights which are the heritage of all those worthy of the name of freedom. It belongs to that group of intimate personal privileges and liberties that countless generations of men have struggled to establish and maintain.

In primitive times, of course, self-diagnosis and self-medication were absolute essentials of existence and the privilege of practicing such self-treatment went unchallenged. As society developed and the rights of the individual gradually became more interwoven with those of the general public, some limitations and qualifications of that right became necessary for the common good. But it is to be clearly noted that in the United States of America at least, the broad and general right of the individual to diagnose his own ailments and attempt their relief through remedies of his own choosing never has been denied by our courts. Indeed, there are affirmative rulings in many adjudged cases to the effect that, with certain well-defined

exceptions, the right of self-diagnosis and self-treatment belongs to every individual of proper age and sound mind. One court has expressed the general or basic principle thus:

"Every human being of adult years and sound mind has a right to determine what shall be done with his own body."

It undoubtedly is true that the public is entitled to adequate protection from the threatened spread of infectious and contagious diseases, such as Smallpox, Typhoid Fever and Influenza, and that sufferers from maladies of that nature may be isolated and deprived, in some degree at least, of the privilege of treating themselves in their own way in their own homes. But in the protection of the public health, under the reserve or police power of any state or of the United States, the public authorities are plainly limited to such provisions as are fairly within the requirements growing out of reasonable anticipation of the spread of disease or the development of an epidemic. In the relief of ailments not of a communicable nature, and in the absence of any basis for reasonable ap-

prehension as to contagion and the spread of disease, neither the Federal Government nor any state has lawful power to compel a citizen to submit to medical treatment not of his own choosing. On this point there is ample authority.

That Congress had all this in mind when the Food & Drugs Act of 1906 was passed is a necessary conclusion. Had the national legislature sought or intended to deprive the public of the right of self-diagnosis and self-medication, assuming for the moment the existence of constitutional power to that end, it would have been an easy matter for the framers of that Act to have chosen express and direct language for the accomplishment of that purpose. But on the contrary Congress, in its wisdom, was careful to safeguard the practical and valuable right of the people to obtain their supplies of prepared medicines and proprietary preparations without the necessity of first paying for a doctor's prescription and then paying for the filling of that prescription far more than the cost of a prepared medicine, manufactured in a modern laboratory according to a formula reflecting the best current medical practice and under conditions comparing favorably with those behind the average pre-

scription counter of our lunch-room drugstores of today. Congress evidently well knew that more than half the prescriptions written by practicing physicians call for patent or proprietary medicines in disguise, and that it is not a difficult process to transfer a prepared medicine to a plain bottle and place a gummed sticker thereon.

The Food & Drug Administration may be warranted in excluding from the market prepared medicines offered for diseases not communicable or subject to epidemics, but such exclusion may not lawfully be based upon a contention that the ailments involved demand the attention of a physician and are not subject to safe treatment through self-medication. As to a proprietary medicine offered to the public for an ailment which is not contagious, the Food & Drug Administration may exclude that medicine from the market only upon a showing that medical science itself has failed to find a recognized treatment for the particular ailment and that the medicine under review would be without palliative or beneficial effect in any degree. This distinction is of vital importance if self-medication is to survive.

BOTANICALS IN A "VICIOUS CIRCLE"

Prior to 1906 there were no standards for drugs recognized in our Federal Statutes. But the passage of the National Food and Drugs Act in that year, and the subsequent re-enactment of that statute for local purposes by some of our States, made the Pharmacopoeia and National Formulary legalized standards for the drugs recognized therein. As a result of this new legislation, it soon became apparent that those who controlled the revision of the Pharmacopoeia and National Formulary at the end of each 10 year period would hold in the hollow of their hands the ultimate fate of any particular drug or substance. It was early perceived, in some quarters at least, that exclusion or deletion from the Pharmacopoeia or National Formulary would place any drug or substance under a heavy handicap in retaining or gaining professional favor.

Thus something like a vicious circle was provided for botanical and vegetable drugs. Those drugs would remain official, through inclusion in the Pharmacopoeia and National Formulary, only if revision committees for those two publications were favorably disposed toward botanicals and not under too great pressure from those whose interests centered in laboratory

products; and the exponents and friends of botanicals could hope for success in selling their ideas to the medical profession only in the event that botanical and vegetable drugs could be referred to as official.

It is regrettable that the exponents and friends of botanicals did not earlier appreciate the necessity of affirmative action on their part in counteracting the activities of those who, for one reason or another, preferred the products of the laboratory and were committed to the view that botanicals gradually should be dropped from the lists of official preparations. Had the trend of the times been perceived in its first stages, the task of stemming the tide and turning it the other way would not have assumed anything like the present proportions; yet the task even now is not impossible of accomplishment, as we shall see.

So potent were the influences operating in favor of laboratory or synthetic preparations in the decade which preceded 1910, when the Ninth Edition of the U. S. Pharmacopoeia was made, that there were deleted 44 botanical drugs that had been official in the Eighth revision of 1900, while the Tenth revision of 1920 omitted 35 botanicals that had appeared in the Ninth Edition.

The U. S. Pharmacopoeia now official carries 69 vegetable drugs, of which 39 may be considered as falling under our classification of botanicals. The balance are gums, resins, balsams and the strong drugs like aconite, belladonna, etc.

The National Formulary, a book of standards since 1888, revised every decade by a committee of the American Pharmaceutical Association, now in its Fifth edition, is also recognized by the Food and Drugs Act theoretically with the same respect as an official authority as the Pharmacopoeia. In its list of botanical drugs there is gradually accumulating a large number of those items deleted from the Pharmacopoeia. Hence, except for the fact that it established the identity and macroscopic purity of the drugs themselves, it does not enjoy the esteem of the Pharmacopoeia as a standard of drugs from a high therapeutic standpoint, and this is one of the criteria used by certain Food and Drug officials in determining the basis of claims advanced for remedial agents that feature botanicals.

To the death of Felter and Ellingwood, the great exponents and authors of the Eclectic School of Medicine, may be attributed in part at least the failure of the exponents of botanical drugs to make a more aggressive battle for the reten-

tion of natural products as official drugs in the Pharmacopoeia and National Formulary. While the Eclectic School is far from discredited, the burden of its defense and preservation since the passing of Ellingwood and Felter seems to have fallen upon the shoulders of John Uri Lloyd of Cincinnati, Ohio, who perhaps is the only prominent living authority on Eclecticism.

Lloyd, as a result of a research in 1912 into the extent of employment of vegetable drugs by American physicians found that, with all classes of practitioners, ten of the drugs prescribed most frequently included aconite, bryonia, cimicifuga (black cohosh), belladonna, nux vomica, gelsemium, veratrum (American Hellebore), cactus, pulsatilla and echinacea (purple coneflower). In the course of his inquiry he received replies from more than ten thousand general practitioners, with more than six thousand of whom cactus was cited as a dependable remedy, either as a sedative, a diuretic, or for diseases of the heart. More than five thousand of the same group of physicians employed, in the order cited, hydrastis (golden seal), aconite, gelsemium (yellow jasmin), ipecac, digitalis, ergot, belladonna, nux vomica, hyoscyamus (henbane), and echinacea.

While it is unquestionably a fact that practitioners of the present day are using botanical drugs either as such, or in the form of their extracts and tinctures, the practice has declined considerably from that which obtained twenty years ago. Modern writers of therapeutics stress the treatment of symptoms combined with nursing the patient and attention to diet. The use of drugs empirically has manifestly declined, and the influence is reflected by the views of Food and Drug Administration officials in accepting allowable claims for products that come under their jurisdiction.

The practical result of all this is that in the year 1933 very few specific claims and representations may be made in behalf of botanical drugs and medicines with the express approval of the Food and Drug Administration, in connection with the enforcement of the Food and Drugs Act. This makes it necessary for distributors of botanicals to sell them

No. 167—Price, 50c.

Greaseless Mosquito Cream—Here is a boon to campers. A greaseless cold cream that will repel mosquitoes and flies. The peculiar, yet not unpleasant odor of citronella grass has been toned down to make it more agreeable and yet more lasting. This is undoubtedly the best mosquito repellent that can be made.

under labels which give little more than their names and directions for preparing and taking. Consequently the fact that popular demand for botanicals has persisted notwithstanding all these handicaps, certainly must be accepted as tending to show that the products of field and forest still possess in some degree at least the virtues and remedial possibilities so well known to our forefathers. Can it reasonably be contended that the public would repeatedly purchase botanical drugs and medicines if without remedial virtues and effect in the conditions in which they are so commonly used? And does not that circumstance in turn suggest this question? If botanical and vegetable drugs that were good enough for our forefathers still are good enough for some of us, if their virtues have remained practically the same down through the centuries, why should botanical and vegetable drugs be relegated to the medical scrap heap and virtually outlawed?

ALMANAC FREE

We publish a new Almanac in November each year. Send us an order, if only for 25c so as to get your name on our customers' list and you will get one of these Almanacs free whenever a new one is published.

THE ANCIENTS HAD SAME PROBLEM

Today, when the shortage of doctors and their tendency to congregate in the big centers of population has left the country at large with an acute problem in connection with their health requirements, and there is agitation in favor of the idea of having the Federal Government and the States provide requisite medical attention for the masses who cannot meet the ever mounting costs of professional medical service, it is interesting to note that the ancient Greeks had much the same problem and that their attempt to subsidize the medical profession and provide medical care through governmental agencies was far from successful.

After the Great Plague in the time of Perikles had brought about a condition which resulted in a popular demand for free medical service under the sponsorship of the state, far-seeing Athenians saw peril to society in this idea, as some good Americans see danger in a similar proposal today in this country. Speaking with his usual clarity and vigor, Plato thus criticised the proposal:

"Numerous law-courts and dispensaries are necessary because insubordination and diseases have multiplied in the commonwealth. Can you ad-

*duce any greater proof of bad and shameful training than the fact of needing physicians and presiding magistrates — and these, too, not only craftsmen of the lower classes, but also for those who can boast of having been well brought up? *** And to need the art of medicine, not on account of wounds or some epidemic complaint, but because of sloth and luxurious feeding,—being distended with rheum and flatulence like lakes and obliging the scholarly Asklepiads to invent new names for the diseases, such as dropsies and catarrhs —do you not think this abominable?"?*

There also is evidence in the writings of ancient philosophers that the idea of the survival of the fittest—or perhaps of the physically sound—was shared by some of the best minds of those days. Some of the early physicians apparently made no effort to cure a man suffering from serious organic disease, but confined their efforts to the relief of the minor or temporary complaints of otherwise sound individuals. The theory seemed to be that the protracted survival of the seriously sick and incurable was a burden upon society and should not be aided or promoted by the medical profession.

WHAT WE ARE TRYING TO DO

It is not our purpose, in offering to the public the various herbs and prepared medicines mentioned in this book, to attempt treatment of the more serious diseases which afflict mankind or enter into competition with the medical profession. Nor do we undertake here or elsewhere to diagnose and prescribe for human ills, since diagnosis and prescription belong exclusively to the licensed physician.

What we really are trying to do, on the contrary, is to supply the public with reliable vegetable and botanical drugs, either separately in their crude state or in a variety of products which represent different combinations of herbs, for those common and less serious ailments and conditions which the average person should be able to understand and treat himself in his own home without the necessity and expense of consulting a physician and paying drug store prices for the filling of a prescription.

In this endeavor we believe we are rendering the public a service of substantial benefit and value, in these days when medical treatment is so expensive and hard to obtain. It is common knowledge that the activities of the limited number of physicians in this country necessarily and properly are now largely restricted to those

more serious maladies which demand professional attention and supervision. Our aim is to offer a service which the medical profession either is too busy to supply or that relates to a class of ordinary ailments which the purchaser of our products, for reasons of privacy, economy or convenience, prefers to treat himself and is able to do without prejudice to the rights of others who may desire and be in position to secure medical attention.

Thus it will be seen that our service is not intended to take the place of or overlap that supplied by the medical profession. Rather is our service supplemental or complementary to that which the trained physician alone can give. Let us repeat and emphasize, therefore, that we are not trying to practice medicine, directly or indirectly, but merely offering what may be described as a line of household remedies which may be prepared by the purchaser himself, for those lesser ailments which are so commonly associated with every day life and household requirements.

If we are suspected of being a bit old-fashioned, we shall readily concede the point, for we freely admit a leaning toward those vegetable and botanical drugs which our forefathers used with so much sat-

isfaction through many generations in the relief of the conditions in which we now offer them. To us it seems clear, that in the quest for the new and different or modern, much of real value has been sacrificed. We believe that, in the substitution of chemical and synthetic drugs for the natural and vegetable and botanical drugs whose use goes back to the dim shadows of antiquity, we have gone altogether too far and paid altogether too much for the doubtful advantage of effecting a change and getting something different.

But, though we have firmly adhered to the natural products of soil or forest, in preference to those developed in the laboratories of man, we have spared no trouble or expense to avail ourselves of every improved method for treating and preserving those botanical drugs or supplying them in prepared form for ready use in the conditions for which they may be indicated. The result is that our improved

methods for preserving or combining these botanical drugs, with a minimum of loss in their natural strength in crude or original state, have increased the medicinal powers and possibilities of those drugs and the products compounded with them. Though we employ substantially the same botanical drugs that have been in common use since time immemorial, we have profited in our methods of handling those drugs from the experience of others as well as from our own experimental work and observation. While we offer you what may be old in substance, for nature is consistent and constant, we present it in such improved condition and form as reflect the best in current thought.

It is because of these policies and beliefs, upon which this business was founded and has been consistently maintained through many years, that we solicit your patronage.

Yours for the best in botanical drugs,

INDIANA BOTANIC GARDENS.

Reseda Bouquet—This exquisite perfume is entirely different than any of the preceding odors—while it is sweet it has a decidedly fresh odor—it reminds one of stepping into a flower garden after a shower. Price \$1.00 per oz.

Violet Bouquet—Different than other violet odors, more sweet, more lasting, more delightful. Every one loves the violet. You will love it more when you get this superfine perfume. If there ever was a "Love Perfume" this should be it. \$1.00 per oz.

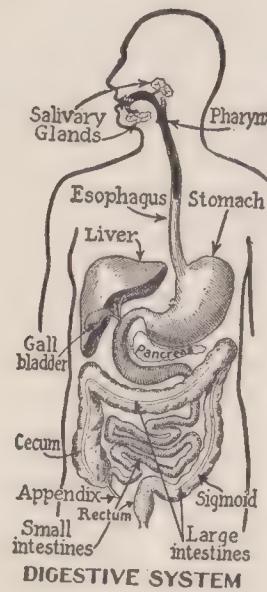




LEGENDS, AND THEIR USES

SOUR STOMACH

The rapid pace set by the present generation, coupled with irregular habits and improper diet, all impose a heavy physical strain that is evidenced in many ways. One of the rather common conditions of today is what is popularly known as Sour Stomach, Acid Stomach or Indigestion. A more technical name for this ailment or condition is Hyperacidity.



When the natural processes of digestion and elimination are working properly, and the body is being supplied with the right kind of food or material with which to replace wornout tissues and provide essential energy and nerve force for our every-day needs, there ordi-

narily is a beautiful body balance between acidity and alkalinity. The system is acid enough but not too acid. There are certain foods, however, quite common to our daily diet, which will not digest readily or at all in an acid medium—which simply means that, when the stomach becomes excessively acid, those foods will remain undigested and give that feeling of heaviness, dullness and distress with which the public is generally familiar. commonly associated with this condition are flatulence, gas pains, colic, nausea and headache.

Relief of such a condition obviously calls for medicines that will promote bowel activity and better elimination, that will settle and soothe the stomach and exert an alterative influence. For these purposes there are, fortunately, a number of botanicals provided by nature, as well as prepared medicines which have been compounded from botanicals chosen and blended for the particular condition involved.

Where the condition is such as to indicate use of a strong laxative, we have our No. 555 Double Quick Tablets, while our milder laxatives include No. 2033 Vitamol Wafers, and No. 99 Calumet Laxative Tea, which may be had in tablet form if preferred. For use as

cathartics or purgatives there are these botanicals: Mandrake Rhizome, Mayapple Root, Culvers Root, Black Root, Senna Leaves, Boneset Herb, Buckthorn Bark, Bryonia. If desired, one box of aromatics and one box of demulcents may be added to any of the purgatives just mentioned to modify their action and prevent griping.

Our botanical carminatives and tonics include: Gentian Root, Wormwood, Angelica, Juniper Berries, Elecampane, Black Alder, Rhubarb, Wild Cherry, Strawberry Leaves, Red Raspberry Leaves, Balmoney. The prepared formulas are: No. 10 Father John's Stomach Tea, No. 12 Hop Bitters, No. 99 Calumet Herb Laxative Tea, and No. 999 Calumet Root and Herb Compound.

For use when a mild alternative may be indicated we offer: Kansas Sunflower, Bull Nettle, Curled Yellow Dock, Sarsaparilla, Burdock Root, Queens Delight, Yellow Parilla, Crimson Clover, Bittersweet Twigs, Sassafras Bark. Among the prepared formulas are: No. 131 Mormon Valley Herb Compound, No. 600 Yellow Dock-Clover Compound, No. 666 Kansas Sunflower Compound, No. 1000 Clover-Blue Flag Compound.

Where there is headache, our No. 604 Calmative Tea will be found very soothing.

In cases where it is desired to promote better elimination through the urine as well as the bowels, we offer these botanicals as stimulant diuretics to the kidneys: Horsetail Grass, Bearberry, Dog Grass, Carrots, Gooseberry Leaves, Sweet Flag, Buchu, Horsemint, St. Johnswort, Water Pepper, Corn Silk, Plantain Leaves. The prepared formulas are: No. 112 U. U. Tea, No. 132 Wild Swamp Root Compound, No. 15 Rocky Mountain Tea, No. 116 Bugleweed Compound and No. 129 Venetian Herb Tea for the aged.

Where the excessively acid condition or hyperacidity has resulted in irritation of the stomach lining and there seems to be a tendency toward an ulcerated condition, there may be need of soothing emollients or demulcents of botanical natures, such as: Golden Seal, Marshmallow Root, Strawberry Leaves, Red Raspberry Leaves, Elm Bark, Flax Seed, Wallwort, German Cheese Plant, Linden Flowers. The prepared formulas are: No. 739 Marvel Internal Emollient and No. 138 Golden Seal-Mari-gold-Clover Compound.

BOTANICALS STILL RECOGNIZED AS REMEDIAL AGENTS

Notwithstanding all the handicaps to which they have been subjected in recent years, as we have seen in this book, botanicals have continued to command some degree of respect even among the advocates of chemical drugs, by their sheer merit. Like truth, when crushed to earth, they rise again to offer aid to man in his battle against the common ailments which he encounters in his daily life. Abused and repudiated, nature still smiles and offers her aid.

Among the botanicals which thus have retained a definite status in the field of medicine are these:

Althea-Marshmallow	Lobelia	Chenopodium
Root	Mandrake	Slippery Elm
Aspidium	Peppermint	Uva Ursi
Buchu	Spearmint	Valerian
Columbo	Ginger	Veratrum Viride
Cannabis	Arnica	Sanguinaria
Cardamon	Sage	Cocillana
Caraway	Boneset	Grindelia
Cascara	Gelsemium	Capsicum
Cloves	Catnip	Belladonna
Cimicifuga	Wild Cherry Bark (as a flavor)	Digitalis
Cubeb	Pumpkin Seed	Hyoscyamus
Delphinium	Santonica	Chamomile
Colchicum	Senna	Cotton Root Bark
Yerba Santa	Senega	Yellow Dock
Gentian (as a bitter)	Serpentaria	Viburnum Prunifolium
Pomegranate Bark	Mustard Seed	Viburnum Opulus
Hydrastis	Stramonium	Hops
Krameria		

There are many other botanicals that are in popular demand in this generation, even though they may have been cast aside by some who prefer laboratory products for one reason or another. The average person finds it hard to believe that the remedial virtues of a leaf, bark or root are diminished in any degree when some person, group, or board, declares in favor of synthetic drugs instead. If herbs were good laxatives, diuretics, diaphoretics, astringents, antacids, carminatives, tonics, etc., at some other period, then they are entitled to classification as such today, for nature has not changed a bit. The professors and the would-be authorities may go on using and talking about the products of

the laboratories of man, but the common people will continue to use the common medicines of the generations that relied upon them so completely and found them so satisfactory.

*"Truth crushed to earth shall rise again
The eternal years of God are hers."*

Included in the long list of botanicals which still enjoy popular favor are:

Echinacea	Wild Sarsaparilla	Spigelia (Pink Root)
Caulophyllum	Pleurisy Root	Prickly Ash
Mitchella	Barberry Bark	Stillingia
Balmony	Bayberry Bark	Triticum (Couch Grass)
Swamp Root	Cascarilla	Sarsaparilla
Life Root (Senecio Aureus)	Chestnut Leaves	Black Hellebore
Absinthium	Centaury	Pipsissewa
Aletris (Star Grass)	Goldthread	Wild Geranium
Chionanthus (Fringe Tree)	Horehound	Elecampane (Inula)
Turkey Corn	Cypripedium	Butternut Bark
Damiana	Bryony	Burdock
Dioscorea (Wild Yam)	Euphorbia pilulifera	Leptandra (Culvers Root)
Euonymus (Wahoo)	Helonias	Skullcap
Figwort	Hydrangea	Red Clover (Trifolium)
Angelica Root	Iris versicolor	Mullein Flowers
American Spikenard	Phytolacea	Collinsonia (Stone Root)
	White Pine Bark	

DID YOU KNOW THIS?

Religious beliefs played a strong part in the attitude of the ancients toward drugs and the practice of medicine. Worship of a pagan god accounts for some of the veneration in which early generations held various substances used for particular medicinal purposes, and the medicine dances of the Indians in more recent times remind us of this fact. As already suggested, we of the present generation are not

without evidence of the tendency in the field of medicine to envelop the art of healing in a veil of mysticism. Few persons who carry a doctor's prescription to a drug store to have it filled know that the sign "B" in the upper left-hand corner attests our worship to the god Jupiter. The explanation made by those who have traced this sign back to its ancient origin and use is that it means "Take thou in the name of Jupiter."

ANCIENT INVOCATION FOR THE SICK

In primitive times, when the god Hea, represented among other things by the triangle made with cuneiform characters, was regarded by the Akkadians and the Assyrians as the god of healing "who had revealed medicine to mankind," it was customary in behalf of the sick to make incantations or invocations something like these:

"Disease of the bowels, disease of the heart,

*The palpitation of the heart;
Disease of the vision, disease of the head,
Malignant dysentery;
The humor which swells,
Ulceration of the veins, the micturition which wastes,
Cruel agony which never ceases,
Nightmare,***
Spirit of the heavens, conjure it,
Spirit of the earth, conjure it.*

FEVER CONDITIONS

When a cold is developing, it often happens that the sufferer has a high temperature and is feverish, with severe headache or neuralgia. The suffering from such a feverish condition may be acute and call for prompt relief through use of a febrifuge or medicine intended for that particular purpose.

Various botanicals, singly or in combination, give excellent results as febrifuges, particularly if the herbal tea is taken hot and the person stays in bed with plenty of covers. Those botanicals include: Boneset, Jesuits Bark, Chamomile, Sweet Flag, Goose Grass, Globe Flower, Goat's Rue, Jaborandi, Blue Vervain.

Our prepared medicines intended for use as febrifuges are: No. 700 Agueweed Compound, No. 22 Jesuits Fever

Bark Compound, No. 7 Florida Tea, No. 12 Hop Bitters, No. 182 Birch Mountain Tea, and No. 221 German Style Herb Tea.

Of course, we are not offering any of our botanicals or prepared medicines for relief of fevers that, in and of themselves, are diseases of a serious type such as typhoid fever and scarlet fever, which call for the training and skill of the practicing physician. What we have in mind in listing these botanical febrifuges are those feverish conditions of the type we have just described or cases of fever in which the services of a physician may not be readily available. The remedies we have listed for such uses may be employed with confidence, because they are of botanical nature and free from harsh chemicals.

MONOPOLY IN MEDICINE

History reveals, clearly and convincingly, that attempts in various countries to give physicians of the regular and established schools of medicine a virtual monopoly in the dispensation of medicine have been bad for the profession as well as for the public. Monopoly is not a good thing at any time or in any circumstances, whether it be in the hands of a group of professional men or of manufacturers and tradesmen. It inevitably leads to deterioration and to a lowering of standards. Moreover, monopoly and a sense of exclusiveness and importance in any field of endeavor invites arrogance, stagnation, and a disposition to impose upon the public. As competition, not monopoly is the law of trade here in America, so should it be the law of professional relations.

There really is no more reason or excuse for giving to physicians of the orthodox and established schools of medicine than there is for giving to the medical profession as a whole the sole right to dispense drugs and medicines. As explained elsewhere in this book, the right to choose one's own medicine for the relief of one's own ills—except in the case of some contagious or communicable malady that might spread and menace the public—is both a natural or inherent and consti-

tutional right. But the privilege of choosing his own remedies, for the relief of his common or ordinary ailments, would be an empty right and without practical value to a citizen if manufacturers of and dealers in those remedies were not permitted to sell them for home use. To state the idea in another way, it obviously would be impossible for a citizen to attempt the home treatment and relief of his ordinary ailments if it was possible for him to secure drugs and medicines only through a prescription from some physician.

We are asking your consideration of this matter because of the great importance to you and the fact that you may not be aware that a determined effort is being made to give the medical profession a monopoly in the dispensation of drugs and medicines—in other words, to destroy the value of the right of self-medication by making the exercise of that right impossible. If this effort is successful, as it surely will be if the American people do not awaken to the situation and register their sovereign will, the cost of medical attention will go still higher and be far above the reach of the man or woman of average circumstances in these hard times. Instead of buying through the mails or from the corner drug

store a reliable line of drugs and medicines for use at home when needed, and at small cost, it will be necessary to go to the office of a physician or call him to your home, pay him for a prescription, and then have the prescription filled at an expense which, in itself and without taking into account the physician's own fee, will be considerably higher than the selling price of some dependable home remedy that might serve your purpose very well, indeed. And when you secure such a medicine through a prescription, you may obtain under a different name the very same medicine the manufacturer or dealer would have sold you direct for less money, for it is an established fact that more than 60 per cent of physician's prescriptions call for ready-packaged or proprietary (sometimes incorrectly called "patent") medicines.

If you are opposed to a "Doctors Trust," if you value the privilege of treating your common ailments in your own way in the privacy of your home, if you are not sold on the idea of going to or calling in a

No. 193—Price, 25c.

Moth Chaser—This is a scientific product, the fumes of which are heavier than air and repel moths. Hang it in a bag among clothes or place on the top of clothes in cedar chests.

physician when you feel the need of medicine, if you resent further encroachment upon your freedom of action and privacy, then make your views known to your Senator and Congressman. And join other users and friends of botanical or herbal drugs and medicines in spreading the great truth that natural remedies have stood the test of time, that they are even better today than ever before, thanks to modern methods of gathering and preparing the medicinal products of field and forest.

Remember, too, that if home remedies are outlawed, so many ailing men and women will be without sufficient means to consult physicians, pay for urinalysis, blood tests, X-Rays, metabolism tests and what not, that the bootlegging of drugs and medicines will become inevitable. Surely America has had enough of the bootlegger. The American people strongly favor and greatly need self-medication and will not abandon the use of home remedies.

No. 3334—Price, 25c and \$1.00 size

Bugbane—For bedbugs, roaches, flies, lice and insects of all kinds. A quick and sure destroyer of these pests. May be burned, sprayed or sprinkled about. For fowls it may be rubbed into their feathers. A vegetable product harmless to humans.

PILES

The annoyance and discomfort of this troublesome ailment are too well known today to require much comment. The strain of our modern civilization, our largely demineralized diet that is almost devoid of the coarse foods of our pioneer ancestors, our hastily eaten meals and a lack of exercise, seem to be jointly responsible for a strong tendency toward constipation, which in turn apparently explains why the present generation is having so much trouble with piles.

Of course, relief from constipation will bring some improvement in associated conditions, but sufferers from the itching and discomfort which come from external rectal irritation, as in Piles, need a soothing application.

DIRECTIONS:—Apply Rectal Ointment after each stool and at night before retiring. This ointment is soothing to the irritated parts. For best results, also use our Demulcent Tea No. 33 and Vitamol Wafers.

It is essential to keep the bowels open by means of No. 99 Calumet Herb Laxative Compound or Vitamol Wafers.

Among our botanical demulcents are: Sweet Weed, Flax Seed, Wallwort, Mullein, Cheese Plant, Agar Agar, Pilewort,

Sweet Marjoram, Dwarf Elder, Chicory.

Among our prepared medicines we have No. 33 Demulcent Tea, and No. 34 Prairie Plant Compound.

No. 103—Box 50c.

Rectal Ointment—This is a very pleasant, soothing and absorbing ointment. It is also valuable for wounds of all kinds. We can highly recommend this ointment for the irritation and itching of external piles. It will give prompt relief.

No. 104—Box 50c.

Rectal Cones—For the external irritation and itching of piles. By inserting one of these cones into the rectum upon retiring at night this remedy is given an opportunity to exert its cooling and soothing influence through the night direct to the afflicted part. It may be used every evening with good results.

No. 105—\$1.00 per box.

Boro Cones—A bland, soothing rectal cone composed of cocoa butter, boric acid and balsams.

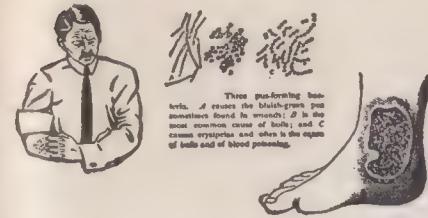




LEGENDS, AND THEIR USES

IRONITE

No. 2036—Price, 25c a Vial, or \$1.00 for 3-Oz. Bottle, or \$2.00 for 6-Oz. Bottle



THE HOUSEHOLD GIANT IRON LIQUID For External Use

This popular remedy has scores of uses. It may be employed freely and with good results as an external application or wash for cuts, bruises, stings and bites of insects, skin irritations, and the many other well known conditions in which a preparation of this kind may be indicated or is commonly used.

The fact that Ironite cannot do harm when used as directed and is free from the sting, harshness, and "bite" so often associated with the use of other preparations, explains why Ironite is preferred by so many and why it has more than held its own in these days of keen competition. The pleasant nature and effects of Ironite make it especially well adapted to general family use and the requirements of old and young. Its action is gentle, agreeable and satisfying to the same time.

Remember this—it is important to keep Ironite in contact as long as possible with the area and condition that are affected or to be treated. For this reason, apply Ironite with cotton and bandage as a wet dressing whenever possible, as in cuts and bruises, and see that the bandage is kept saturated with the Ironite.



In nasal conditions, such as often accompany a head cold, Ironite will be found very effective. Snuff up the nose and hold it there as long as possible, repeating the operation frequently. Ironite does such good work in clearing the nasal passages that its use for that purpose should be made a daily habit. You will be surprised and delighted at the effects after a few days' trial. Pour a small quantity of Ironite into the palm of the hand and snuff it up the nose until it can be tasted in the mouth, then expectorate. Do this at least twice in succession and note the amount of mucus loosened by the Ironite.

One of the splendid features of Ironite, that makes it particularly desirable as a gargle or douche, is the fact that it may be used daily without fear of irritation of the delicate mucous membranes with which it may come in contact. While, of course, there are other remedies which do the work intended and are

capable of occasional or irregular use without injury to the membranes, it is doubtful in many cases whether those preparations will be free from irritation to the membranes under constant use. This agreeable feature of Ironite is most important, because modern hygiene teaches us that the daily use of a mild gargle is a splendid habit to acquire.

What has already been said will also explain why Ironite makes such a good douche for women, and why it is so well adapted to feminine requirements.

GENERAL DIRECTIONS FOR USING IRONITE

(1) AS A NASAL SPRAY: Dilute 1 teaspoonful of Ironite with 10 teaspoonsfuls of warm water—after 3 or 4 days, use 2 teaspoonsfuls of Ironite to 10 teaspoonsfuls of water—after 6 or 7 days more, use 3 teaspoonsfuls of Ironite to 10 teaspoonsfuls of water and gradually increase the strength until the Ironite can be taken full strength without discomfort.

(2) AS AN APPLICATION FOR MINOR SORES AND ULCERS: Use Ironite full strength. It may be applied by soaking absorbent cotton with Ironite and apply to the afflicted part, covering with oiled paper and bandage. Keep the cotton wet with Ironite for an hour every day, if possible. Before applying the second application of Ironite, bathe the afflicted part with warm water and soap, thoroughly. In aggravated cases consult a physician.

(3) AS A GARGLE: Dilute Ironite half and half with warm water. After a few days, use it full strength. Gargle repeatedly for at least 5 minutes.

(4) AS A MOUTH WASH: Dilute Ironite half and half with water the first three or four days—after that, use it full strength. The Ironite should be forced all around the teeth and gums and allowed to remain in contact with the irritated tissue for at least 5 minutes. The longer the better. After rinsing the mouth with warm water, use a good toothpaste immediately or the teeth will become discolored. If this is done thoroughly, the teeth will become whiter or cleaner than ever.

(5) AS A DOUCHE: Use 1 tablespoonful of Ironite to a pint of warm water—after a few days' use, increase the Ironite to 2 tablespoonsfuls and continue increasing the Ironite until 1 ounce of Ironite to a pint of water can be used without discomfort. Ironite is harmless even if used full strength, but it may draw too much for comfort, and would make the cost of the treatment rather expensive. The longer Ironite is kept in contact with the afflicted tissue, the better the results. Repeat the douche continuously for at least 20 minutes.

(6) AS AN ENEMA: Follow same directions as given for a douche.

(7) FOR SKIN IRRITATION AND ITCHING: Wash afflicted parts thoroughly with soap and warm water, dry, and apply Ironite by swabbing afflicted surface with clean cloth soaked in Ironite—swab several times and allow it to remain. For small surfaces, apply with a little cotton twisted around a toothpick and soaked in Ironite. Apply it several times and allow it to dry. For a cold blister apply Ironite as soon as it is noticed—also after it appears. You will be delighted with the results.

(8) FOR ALL OTHER PURPOSES: Use Ironite full strength wherever it can be done without discomfort. Remember, Ironite is absolutely non-poisonous and harmless. Ironite should always be kept in contact with the afflicted parts as long as possible. If used as a bandage, keep it wet all the time,—covering with oiled or wax paper to prevent drying out and to protect the clothing. Always destroy the cotton used to apply Ironite for sanitary reasons and to prevent infection.

IRONITE

I never want to be without your Ironite. I find so many uses for it. I put some in the drinking water for a sick chicken and whatever was wrong with the chicken, Ironite cured it. Writes Mrs. P. C., Atlanta, Ind.

Your Ironite, priced at 25c and \$2.00 per bottle, is the best healing agent I have ever seen. Last summer I bought a trial bottle of it to try on a pigeon's wing, which had been shot. The wing had a discharge of matter from it all summer and one application of Ironite healed the bird's wing without leaving one scar. It also cured a sore on one of the chickens' head which we did not know the cause of, but one application of the Ironite and it was cured. Our cat was also cured with this wonderful healing remedy. It had eczema so badly that his neck was a solid scale from his ears to his shoulders and after using the Ironite once he began to heal and before long it was all gone. Writes Mrs. E. E. G., Atlanta, Ga.

I just want to say a few words about No. 2036 Ironite, priced at 25c and \$2.00 per bottle. I used it as you suggested on the horse. After the doctor cut off most of the proud flesh and it was beginning to heal, I washed it twice daily with Ironite. The cut healed quickly and without any infection setting in. Writes J. J. C., Berwick, Pa.

You may be pleased to hear that after suffering with an Ulcer for nearly a year, it is now getting cured through the use of Ironite, priced at 25c and \$2.00 per bottle. Writes G. W. H., Montclair, N. J.

Editor's Note—You can just bet I am.

My wife had a Sore on her leg for over nine months and two doctors used all kinds of remedies without any success. I purchased four of your No. 44 Old Tamarack Poultices, priced at 50c each, and in three weeks' time her leg was all healed up. A truly wonderful remedy. Writes A. S., Green Bay, Wis.

I gave a neighbor of mine what I had left of the Ironite, priced at 25c and \$2.00 per bottle, for an infected foot. It eased the pain immediately and it has almost healed up. She thinks that it is marvelous and in today's order I ordered the Ironite for my neighbor. Writes Mrs. E. M. B., Mobile, Ala.

I sent for Ironite. It sure is good. Writes Mrs. T. B. Y., Monroe City, Mo.

Please send a 25c vial of Ironite. I can't do without it. It is the finest thing I ever got for sores. Writes S. B., Bicknell, Ind.

I want to tell you that Ironite has healed my husband's varicose ulcer. It was a running sore and we used three 25c vials and it is healed all over. Writes Mrs. G. G. B., Chaumont, N. Y.

I have had a running sore on my leg for years. It is now healed, thanks to Ironite. Writes Mrs. S. A. B., Dazey, N. D.

With my last order I included a 25c vial of Ironite which I have used and found entirely satisfactory. You speak of it very highly, but none too highly in my estimation, as I regard it as being a truly marvelous healing treatment. It has, apparently, already completely healed an old sore of several years' standing, which I regard as wonderful. Writes G. F. M., Lewistown, Pa.

Just a few lines to let you know how much your \$2.00 bottle of Ironite has done for me and also for my husband. He has had a very sore ulcer on his leg for a long time and he tried lots of medicine with no good results. By using Ironite for a short while it has healed up. I am also using Ironite for piles and find it very good. Also my husband has a knot on his neck right under his ears and he has been told by three doctors it was a swollen gland and it has been real sore. We are bathing it twice a day with Ironite and it is taking the soreness right out of it. Writes Mrs. P. I. T., Richmond, Va.

I got bit by a cat and it hurt terribly, so I used Ironite on my finger. It eased the pain and never got a bit sore. Writes Mrs. M. C., Indianapolis, Ind.

Some time ago I ordered a 25c vial of No. 2036 Ironite for Piles. I was suffering severely with Protruding, Bleeding Piles. After I used a few applications of Ironite I have had no more pain. I am sending \$2.00 for a large size bottle. Writes F. M. H., Argo, Ky.

Have used your Ironite (25c, \$1.00 and \$2.00 per bottle) and never have found anything better. It is the most wonderful healing agent I have ever used. Writes Mrs. A. J., Spokane, Wash.

Editor's Note—Your own inherent power does the healing. Ironite maintains a favorable condition in the wound.

I am sending you another order today as I have used the herbs all up. I don't think that there is any better medicine than your Ironite, priced at 25c and \$2.00. My granddaughter came over the other day and she had a sore on her leg. I began using your Ironite and giving her No. 99 Calumet Laxative Tablets, priced at 50c per box, and today her leg is well and her general health has improved. Writes J. W. L., Newark, Ark.

My husband fell and had a gash on the back of his head. I used Ironite (priced at \$2.00 per bottle) on it every day and it healed up fine in a short time. Writes L. J. P., Pavla, Kan.

BRIEF HISTORY OF KING COTTON

The conquest of Alexander made the Greeks acquainted with cotton. The wool-bearing trees of India surprised his soldiers, and the accounts of these wonders by his admiral Nearchus, and by Aristobulus, one of his generals, have been preserved. "The trees from which the Indians make cloths have a leaf like the black mulberry, but the whole plant resembles the dog-rose. They plant them in the plains, arranged in rows, so that they look like vines at a distance. They bear no fruit, but the capsule containing the wool is, when closed, about the size of a quince; when ripe, it expands, so as to let the wool escape, which is woven into cloths."

The Eastern name for cotton was introduced into the languages of Europe when the substance itself became known. The Sanskrit kurpasa is converted into karpas in Esth. 1:6 (a term certainly of foreign origin), into Kapraooc of Greek authors, and carbasus in the Latin language. The only reference to cotton in the Scripture is in the passage just quoted, which contains an account of the decorations of the royal palace of Ahasuerus and its courts on the occasion of a great festival given to his people. The sense is obscured in

our version by karpas being rendered "green" instead of cotton, the passage reading: "Where there were white, green and blue hangings," instead of hangings of white and blue cotton cloth. The translators have followed the Chaldee paraphrase, although the true meaning had been given both in the Septuagint and the V gate. Even if cotton were not at that time a product of Southern Persia, it is more than likely that when the Persian empire extended to India and its court had every luxury, the brightly-colored hangings of the neighboring country formed part of the furnishings of the palace.

At the present day cotton is somewhat extensively cultivated in Palestine, the species being *Gossypium herbaceum*. A small proportion of the produce is made into cloth, but the principal portion is exported to France. The Arab women are almost entirely clad in blue cotton that has been spun, woven and dyed by their own hands.

Cotton grows most luxuriantly in our Southern States; it is raised there more cheaply and in larger quantities than in any other part of the world, and is exported in immense quantities to Europe.

MANNA

The tamarisks are shrubs or trees with erect slender branches, densely covered with very small scale-like leaves. They have somewhat the appearance of the cypress, and are often mistaken by hasty observers for coniferous plants. The numerous small flowers are borne in catkin-like spikes at or near the tips of the branches, and cover the plant, when the flowers are open, with a mass of white or rose color, which almost hides from view the bright green of the foliage. The plants of the order are exclusively confined to the temperate and warmer countries of the northern hemisphere, and usually grow by the seaside, but are also met with on the margins of rivers and in arid plains. The basin of the Mediterranean is their headquarters. The tree and its products were much valued by the Arabs; their great physician, Avicenna, in his *System of Medicine*, repeatedly dilates upon it, and recommends its different parts, as well as the astringent galls which are often found on it, as valuable medicines. The wood is much esteemed for making vessels because of its compactness and durability, and the charcoal produced from it is so much prized that in some districts the Arabs have almost if not entirely extirpated the tree in

order to convert its wood into charcoal. The young leaves are a favorite food of camels and sheep.

The tamarisk has still greater interest to the Bible student because of the connection which many maintain it had with the manna on which God fed the Jews during their wanderings in the desert. Six days after leaving Egypt they arrived at the Wilderness of Sin; here they murmured against Moses for bringing them from Egypt to die of hunger in the wilderness. God, through Moses, promised to rain bread from heaven for their use; and until they ate of the old corn at Gilgal forty years afterward, the wilderness around their camp was covered each morning, except that of the Sabbath, with this bread which the Lord gave them. When the morning sun had dispelled the dew, they found a substance on the ground small as the hoar-frost, round like coriander-seed and white like bdellium. Its taste was like that of oil newly expressed from the olive, or of wafers made with honey. It was gathered in the morning, for when the sun waxed hot it melted; an omer (about three quarts) was taken for each individual, but on the morning of the sixth day two omers were collected, and what remained over till the seventh day was

good, while any that might have been kept over on the other days of the week bred worms and putrefied in the morning. It was treated like corn, being ground in mills or pounded in the mortar, and was boiled, baked in pans or made into cakes.

The substance now called manna is the saccharine juice of different plants which exudes through the bark when injured, and is produced generally in greatest abundance in very warm weather. In some cases the sweet juice escapes through a natural rupture in the bark of the plant, in others its production is induced by the punctures of an insect, while in others it flows through incisions made in the bark for the purpose of obtaining it. The manna of commerce is obtained by the last method from the flowering or manna ash, a tree belonging to the Mediterranean region, and cultivated in Calabria for the production of this substance.

The conditions under which "the bread of heaven" was found and the properties it possessed were very different from those of any of the known mannas. It was found covering the surface of the wilderness, wherever the Israelites went, as soon as the heavy night dews disappeared, and not on or under the two manna-

producing plants of the wilderness, the tamarisk tree or the camel's thorn. It was supplied, not in small quantities, but in inexhaustible profusion. It was found every morning all the year round for forty years, except on the morning of each seventh day, when the supply was completely suspended. It was prepared for use by processes which could not be applied to saccharine substances, being ground in a mill and afterward boiled or baked. It was not used as a condiment, but formed the food of the hosts of Israel all through the wilderness. Mannas are preserved without difficulty, but this substance very speedily decayed, putrefying and breeding worms if kept more than twenty-four hours.

An omer of manna was taken by Aaron in accordance with divine instruction, and placed in a golden pot, to be preserved as an abiding memorial of God's care of his people. The pot was placed with Aaron's rod inside the ark, which held the tables of the law. Heb. 9:4. It would seem, however, that when Solomon removed the ark of the covenant from Zion to the temple the pot of manna had been lost, for it is particularly specified that then there was nothing within the ark but the two tables of stone. 1 Kings 8:9.



TO INDUCE SLEEP

Here is a simple, harmless herb formula that will please you. The formula contains only three different herbs, they are: Blue Sculcap, Catnip and Peppermint. You merely mix equal parts of these together and then use one or two heaping teaspoonfuls of the mixture to a cupful of boiling water—and allow it to remain until lukewarm. Drink the cupful warm upon retiring at night and you will sleep better.

The Catnip and Peppermint plants are known to all and require no description. Blue Sculcap, however, may not be as well known.

Blue Sculcap grows about 3 feet high and has a square branching stem. The flowers are of a pale blue color. It grows in moist places, in ditches, and along the sides of ponds. The whole plant has medicinal virtue. It should be

gathered while in bloom and hung up to dry in the shade—then it is to be packed in air tight containers as it loses its strength and medicinal virtues very quickly.

Sculcap is a valuable nervine, tonic and antispasmodic—useful in convulsions, fits, delirium tremens and many nervous affections. It supports the nerves, quiets and strengthens the nervous system.

I can furnish Blue Sculcap and any other root or herb grown, at 25c per box each. These three ingredients, Blue Sculcap, Catnip and Peppermint will cost you 75c for the three.

To get results from this recipe these herbs must be strictly fresh, last season's crop—and I do not know any place where you can get them strictly fresh except from us.

A GREAT CHAMPION AND DEFENDER OF BOTANICALS

It is unfortunate, indeed, that the study of botany has been so neglected in America in recent years. There was a time when our medical colleges treated the subject with the care and thoroughness indicated by its importance in relation to our supply of herbal or botanical drugs and medicines, but today botany is sadly neglected.

Curiously enough, our knowledge of early American Flora is derived in no small part from the labors and teachings of a man of foreign birth who came to this country to pursue his studies in natural science and was intrigued by the plants and herbs he found here. That man was Constantine Smaltz Rafinesque, who prepared the first comprehensive work of its kind of which we have any record. The scope of that book is indicated by its title and accompanying description:

"Medical Flora: or Manual of Medical Botany of the United States of North America. Containing a selection of above 100 figures and descriptions of Medical Plants, with their Names, Localities, Properties, History, etc., and notes or remarks on nearly 500 Equivalent Substitutes. In two volumes. By C. S. Rafinesque, A. M., Ph. D., 1828-30. Philadelphia."

That Rafinesque was a firm believer in the medicinal powers and virtues of botanicals is obvious from his writings. Indeed, he left no room for doubt upon that point in his "Manual of Medical Botany," where he observed, among other things, that "the popular belief that every country produces simples suitable to cure all their prevailing local disease, is not devoid of truth. * * * There are many modes of effecting cures by equivalent remedies, but vegetable substances afford the mildest, most efficient, and most congenial to the human frame."

Much interesting light is thrown on the state of medical knowledge and practices in those times by these pertinent comments by Rafinesque in the preface to his "Medical Flora":

- “1. The Science of Botany was at all times intimately connected with Medical Knowledge.
- “2. Several ancient nations, such as the Grecians, Romans, Hindus, Chinese, etc., considered Medical Botany as equivalent to both botanical and medical knowledge.
- “3. Medicine was then, and is still, among such nations, nothing more than the application of an empirical knowledge of vegetable substances.

- “4. Thence, the usual vulgar division of plants into the five great classes of Aliments, Simples, Poisons, Flowers and Weeds—or alimentary, medical, poisonous, ornamental and useless plants.
- “5. At the revival of learning in Europe, this notion being general, the first works on Botany were, of course, mere sketches of Medical Botany, and comments on Grecian and Roman writers.
- “6. When Tournefort and Linnaeus, about a century ago, became botanical reformers, and made Botany a separate science, their efforts and improvements were resisted by those who, at all times, contend against useful innovations.
- “7. Linnaeus in his *Materia Medica* gave a model of Systematic Medical Botany, equally concise, perspicuous and accurate; but destitute of the help of figures.
- “8. This model was followed by Schoepf (of Erlangen University) in his *Materia Medica* of North America, the first great work on medical plants, published in German and in Latin, toward 1787. This small work of Schoepf has never been translated nor republished in America; although highly deserving of it.
- “9. When America was settled, the native tribes were in possession of many valuable vegetable remedies, discovered by long experience, the knowledge of which they gradually imparted to their neighbors.
- “10. This knowledge, partly adopted, even as far as Europe and partly rejected by medical skeptics, became scattered throughout our country in the hands of country practitioners, Herbalists, Empirics and Botanists.
- “11. Schoepf collected his materials from them and noticed about three hundred and sixty plants as medical; but he did not go everywhere, nor exhaust the subject, since nearly double that number are actually in common use in different states of the Union.
- “12. Since the United States have become an independent and flourishing nation, much has been done to teach and spread correct medical knowledge.
- “13. The establishment of Medical Schools, Chairs of *Materia Medica*, of Medical and Systematical Botany, Medical and Botanic Gardens, Infirmaries, Hospitals, have largely combined to impart medical and botanical knowledge, through the professional class.

- “14. This purpose has been aided by numerous publications of learned physicians and botanists, medical works, pamphlets and journals, *Pharmacopoeias*, *Dispensatories*, *Inaugural Theses*, etc.
- “15. Notwithstanding all these means, it is a positive and deplorable fact that but few medical practitioners apply themselves to the study of Botany, and therefore are deprived of the aid of comparative Medical Botany.
- “16. It is not less certain, but still more deplorable, that beyond the immediate sphere of medical knowledge, the majority of people are not yet a prey to medical credulity, superstition and delusions, in which they are confirmed by the repeated failures of theorists and occasional success of empirical rivals.
- “17. Even in large cities and in the centre of medical light, Empirics are thriving, because they avail themselves of the resources afforded by active plants, often neglected or unknown to the regular practitioners.”

While Rafinesque, like so many other men of genius, was the victim of much ridicule in his later years, because of his convictions, it is refreshing to note that after his death he was defended by two great students of Botany, Professors Agassiz and Gray of Harvard University. And let us not forget that good old mother nature still provides for us the same herbs she supplied in the days of Rafinesque.

HORSETAIL GRASS OR SCOURING RUSH

These plants grew along the dykes of Holland and helped to strengthen them. It grows plentifully in this region and we gather tons of it every season.

In the days when pewter was used exclusively and patent cleaners were unknown, housewives found these plants a great aid in scouring. This undoubtedly is the reason it is called Pewterwort and Scouring Rush.

We can furnish this valuable remedy for only 25c per box. Horsetail Grass or Scouring Rush is rich in organic minerals, especially Lime, which is essential to good teeth and strong bones.

To make this tea, steep a teaspoonful of the plant in a cup of boiling water. Drink cold, one or two cupfuls a day, a large mouthful at a time.

THE HYSSOP

CAPPERIDEAE—Between three and four hundred plants scattered over the tropics and the countries bordering on them are known belonging to the caper family. Their northern limit in the Old World is reached on the European shores of the Mediterranean. The plants are herbs or shrubs, seldom trees, which agree in many essential characters with the crucifers, and not a few of them possess the acrid or pungent qualities common in that order. The best known plant of the family is *Capparis spinosa*, the unopened flower buds of which, pickled in vinegar, are the common caper, so largely used as a condiment because of their agreeably pungent and slightly bitter taste. It is a trailing shrub with numerous slender stems armed with recurved or nearly straight spines, placed at the base of the leaves. The broadly ovate leaves are leathery and quite smooth. The flowers are white, and with a loose bunch of many long purple anthers in the center, and the fruit is pear-shaped and borne on a long stalk. It is found springing out of the face of rocks and walls. Sicily is the principal seat of its cultivation for pickling, but it is indigenous to the whole Mediterranean region, and is a common plant in Egypt and Palestine and in all

OF THE BIBLE

the intervening desert. Three centuries ago Rauwolf found it around Jerusalem; and its patches of bright green, contrasting remarkably with the light-colored rocks on the face of which it grows, have arrested the attention of all travelers. On the face of the Mount of Temptation, overhanging Jericho, the caper was letting down its festoons of beautiful blossom in the month of January. It is also found in the gorge of the Litany or Leontes. On the sandy plain between Jericho and the Jordan, at the southeast end of the Dead Sea and the plains of Shittim, there was found growing plentifully of the variety which has been distinguished as *Capparis Aegyptiaca*, and the trailing branches were often three or four feet long. Three species of a second genus (*Cleome*) of the caper family occur in the desert to the south of Palestine, and one of these reaches north to the depressed region of the Dead Sea. These plants are small and unimportant annual herbs, somewhat resembling the long-podded cruciferous weeds of our fields. The special interest of the caper family here is that several authors have identified the hyssop of Scripture with *Capparis spinosa*. Sprengel first suggested this opinion, which has been exhaustively

LEGENDS, AND THEIR USES

investigated by Dr. Forbes Royle, and has been adopted with more or less caution by the great majority of writers and travelers in recent times.

To enable us to appreciate the characters that the hyssop of the Bible possesses, we must recall the passages in which it is referred to. The expiatory sacrifices of the Old Testament economy, like the one Sacrifice of the New Testament, were God's appointed means of removing sin and reconciling the sinner to himself by the "shedding of blood." In some of these sacrifices the relation between the shed blood and the transgressor was made manifest.

(Heb. 9:19-22) The Psalmist, having in his view this frequent use of hyssop in the ceremonial law as the means by which the virtue of the sacrifice was transferred to the transgressor, applies it figuratively to the purification of the soul from guilt when he prays, "Purge me with hyssop, and I shall be clean." Ps. 51:7. The first recorded use of hyssop as a blood sprinkler and the first

reference to the plant in the Bible is on the eve of the Exodus, when the Israelites employed it to sprinkle the door-posts with the blood of the paschal lamb: "Ye shall take a bunch of hyssop, and dip it in the blood that is in the basin, and strike the lintel and the two side-posts with the blood." Ex. 12:22. Reference is made to hyssop in the gospel narrative in connection with the Crucifixion of the Saviour. "After this, Jesus knowing that all things were now accomplished, that the Scripture might be fulfilled, saith, I thirst. Now there was set a vessel full of vinegar, and put it upon the hyssop, and put it to his mouth." John 19:28, 29. The cedar was the glory of Lebanon and the pride of every Jew, but it was not more familiar to him than the plant which was in such constant use in the purifying services of his religion. The tall cedar and the humble hyssop would at once suggest to him the most extensive range in the vegetable world.

IMMORTALITY

Two caterpillars crawling on a leaf
By some strange accident in contact came;
Their conversation, passing all belief,
Was that same argument, the very same,
That has been "proed and conned" from man to man
Yes, ever since this wondrous world began.

The ugly creatures,
Deaf and dumb and blind,
Devoid of features
That adorn mankind,
Were vain enough, in dull and wordy strife,
To speculate upon a future life.
The first was optimistic, full of hope;
The second, quite dyspeptic, seemed to mope;
Said number one, "I'm sure of salvation."
Said number two, "I'm sure of damnation;
Our ugly forms alone would seal our fates
And bar our entrance through the golden gates.
Suppose that death should take us unawares,
How could we climb the golden stairs?
If maidens shun us as they pass us by
Would angels bid us welcome in the sky?
Perhaps we've been ungrateful, unforgiving;
Tis plain to me that life's not worth the living."
"Come, come, cheer up," the jovial worm replied,
"Let's take a look upon the other side;
Suppose we cannot fly like moths and millers,
Are we to blame for being caterpillars
Will that same God that doomed us crawl the earth,
A prey to every bird that's given birth,
Forgive our captor as he eats and sings
And damn poor us because we have not wings?
If we can't skim the air like owl or bat,
A worm will turn 'for a' that.'"
They argued through the summer; autumn nigh,
The ugly things composed themselves to die;
And so, to make their funeral quite complete,
Each wrapped him in his little winding sheet,
The tangled web encompassed them full soon,
Each for his coffin made him a cocoon;
All through the winter's chilling blast they lay,
Dead to the world, aye, dead as human clay.
Lo, Spring comes forth with all her warmth and love;
She brings the chrysalis, she resurrects the dead;
Two butterflies ascend encircling her head
And so the emblem shall forever be
A sign of Immortality.

Joseph Jefferson.

HERBS OF BIBLE LANDS

The flax family (Lineae) consists of a small group of herbs found principally in temperate regions, in no way remarkable except for their valuable fibrous bark, which, when prepared, forms the flax of commerce. Besides the common flax, only known as a cultivated plant or as an escape from cultivation, our flora contains four indigenous species of this order. These are the all-seed (*Radiola millegrana*), one of our smallest flowering plants, found in damp, sandy places, but often overlooked from its minute size, the white-flowered purging flax so common in pastures, and two blue-flowered species allied to the cultivated flax. Boissier records eleven species of *Linum* from Palestine besides the common flax (*L. usitatissimum*), which is there, as with us, extensively cultivated for its fibre. Flax was the most important of all the fibre-producing plants to the ancient inhabitants of Egypt and Syria. It is frequently referred to in the Bible, and various names are applied to the plant and its raw or manufactured products. The most general term is *pishnah*, the primary meaning of which is the plant itself, and then it was applied to the products being used with the same latitude of meaning as we use the word "cotton" at the pres-

it may be the same word as the Hebrew numeral six, and that it was applied to the yarn because it was composed of six threads; others hold that it is derived from a root meaning white, and was appropriately applied to the flax because of its color when prepared. When Pharaoh made Joseph ruler over Egypt, he "arrayed him in vestures of fine linen" (*shesh*) (Gen. 41:42); so also among the offerings for the tabernacle presented by the children of Israel from the materials they had brought out of Egypt were "fine linen" (Ex. 25:4); and of the same material were made the curtains of the tabernacle, with the door curtains, and the veil that enclosed the holy place. (Ex. 26: 1, 31, 36.) *Bad* is a word employed in describing the linen dresses which were worn in religious ceremonies, and may refer to the cloth made from the *shesh* or yarn. The tunic, turban and drawers of the priests, which in Exodus (39:27, 28) are ordered to be made of

shesh, are in Leviticus (6:10) to be made in *bad*, establishing that these were the same material, if the words were not precisely synonymous. In the preparation for the erection of the tabernacle, the wise-hearted women are said to have spun "fine linen" with their hands; and this continued to be the occupation as well as the dress of women in the days of Solomon (Prov. 31:22, incorrectly rendered "silk") and afterward. (Ezek. 16:10, 13.) *Butz* is always translated "fine linen" and is employed to designate the robes worn by kings (1 Chron. 15:27) and rich men (Esth. 8:15), and the official dresses used by the Levite choir when the ark was brought into the temple. (2 Chron. 3:14.) The word is probably of Assyrian origin, and is applied to "fine linen" obtained from the East (Ezek. 27:16) while *shesh* is employed to designate the "fine linen" brought to the market at Tyre from Egypt, v. 7.

GARLIC AS A REMEDY

Plinius, the Roman Naturalist, states that Garlic is an excellent remedy for mad dog bite. Dr. Holuby in his works on "Slowakischen Volksmedizin" relates how a woman having been bitten by a mad dog became raving and no remedy

was known. She was thrown into a cell in which there happened to be hanging a wreath of Garlic and in her mad furor she bit into the garlic and ate it. Presently she fell into a deep sleep and awoke completely cured.

FOR LOSS OF APPETITE

Do you ever feel tired and worn out, suffer loss of appetite, and have just a general worn out feeling?

If so, it is merely Nature's way of telling you that she needs a little help—something to tone up the system. And where could you find a better tonic or one less expensive than the root of Gentian?

Gentian is a powerful tonic. It improves the appetite, strengthens digestion.

There are many varieties of Gentian, although not all are used medicinally. The Blue or the American Gentian has a perennial branching somewhat fleshy root, with a simple erect rough stem, eight to ten inches in height, and bears large blue flowers, blossoming from September to December. Another species widely used medicinally is the kind common in Central and Southern Europe especially on the Pyrenees and Alps.

Gentian has long been used medicinally as a tonic. The name of Gentian, in fact, is said to be derived from Gentianus, king of Illyria, who was the first to discover the medical qualities of this wonderful root.

Gentian Root is the main ingredient of many of the old time Stomach Bitters. It makes an excellent Bitter Tonic when placed in any kind of wine or liquor. Its bitter taste can be overcome to a great extent by using the same amount of Licorice Root with the Gentian.

Gentian Wine is an old time favorite tonic. It improves the appetite in a most remarkable degree. It is made by simply placing one or two ounces of Gentian Root in a gallon of any sweet wine. Gentian Bitters is made in the same way—except that two to four ounces of the root is needed to a gallon of wine.



GENTIAN
LUTEA



GENTIAN
BLUE

PLANTS OF PALESTINE

Although represented by only five species of indigenous plants, the mallows form a somewhat conspicuous portion of our native flora, because two species with large lilac or purple flowers are everywhere common by roadsides and in waste places. The others are less common; one, the tree mallow, is found on rocks by the sea-side; another, the marshmallow, occurs in maritime rushes.

Some eighteen species are known in Palestine, and three of these are found in our own country, two being the common wayside mallows (*Malva rotundifolia* and *Malva sylvestris*), and the other the marshmallow (*Althea officinalis*). The gay pink-flowered shrub which is so familiar an ornament of our shrubberies in autumn, called *Althaea frutex*, is a Syrian plant. It is the *Hibiscus Syriacus*, a plant which, though it grows so freely with us, appears to have become extinct in the localities where it was formerly observed in Syria. The plants in this order which are of most importance to man are those belonging to the small genus *Gossypium*, which have their seeds covered with the long hairy filaments called cotton. One species (*G. herbaceum*) is a native of India, and its natural distribution westward extended prob-

ably to Southern Arabia. It has always been used for the manufacture of cloth in India. Four centuries before our era Herodotus refers to this plant in his account of the products of India, when he says that "the wild trees in that country bear fleeces as their fruit, surpassing those of sheep in beauty and excellence, which the Indians make garments of." The use of cotton in Persia and Southern Arabia is probably as ancient as in India. The date of its introduction into Egypt cannot be determined; there is reason to believe that it was known to the Egyptians before the time of the Greek conquest, B. C. 333.

Caryophylleae, Frankeniaceae, Paronychiaceae and Molluginaceae.—The plants of the four orders here grouped together, while they exhibit many important points of difference, are yet related to each other by so many essential characters that they naturally arrange themselves in one great family. The position of the stamens and the presence or absence of the corolla, which generally supply valuable characters for classification, are of importance here only in relation to the minor groups in which the plants are arranged.

The pink family (*Caryophylleae*) consists of rather more than a thousand species of, for

WATER
PIMPERNEL

TULIP TREE

SWEET BIRCH

SPANISH
IRIS

STICKLEWORT



LEGENDS, AND THEIR USES

the most part, inconspicuous annual or perennial herbs, found in the temperate and frigid regions of the world, chiefly in the northern hemisphere. Many species of *Dianthus* and *Silene* have handsome flowers, and the abundant star-like blossoms of some stitchworts whiten our hedge banks in early summer; but the majority of the plants of the order are small and have inconspicuous flowers. The translators of our version have introduced into the text the name of a plant belonging to the pink family—the cockle—as their interpretation of the Hebrew *baeshah* in Job 31:40: “Let thistles grow instead of wheat, and cockle instead of barley.” Celsius considers it to be the aconite while the hemlock and the nightshade have each been advocated by others. The best authors see no reason for giving up the authorized translation, and consequently consider that our pink-flowered cockle, a very troublesome weed to farmers, or one of its varieties, is the plant intended. The plant is indeed found within the Palestine area, but only as an advanced member of the northern flora, and it is not met with farther south than the mountain ranges of Lebanon and Anti-Lebanon, and consequently not in the cornfields of the country.

The sea-heath family (Frankeniaceae) contains same thirty species of small plants chiefly found on the coasts of temperate or warm countries. They probably belong to a single genus. In our flora the family is represented by one species, a small plant spreading close to the ground, with wiry stems, numerous tufted leaves and inconspicuous rose-colored flowers, found chiefly in the salt marshes on the south-eastern coast of England. Two species of similar looking plants are found in Palestine on the shores of the Levant.

The whitow-worts (Paronychiaceae) are a larger family, consisting of somewhat over one hundred species of humble tufted plants with small leaves and minute flowers, occurring generally in sandy places. Six species are found with us and about the same number in the sandy fields of Palestine. The family is more numerously represented in the Sinai region and in the deserts to the south of the Holy Land.

The carpet-weeds are a similar group of small inconspicuous weeds found in the warmer regions of the world and having but one species in Palestine—a glaucous plant with small white flowers, found in the northern parts of the country.

THE PLANTS OF PALESTINE

Berberideae, Nymphaeaceae, Papaveraceae and Fumariaceae.—The plants belonging to these four orders, though they may be of little interest to the Bible student, must nevertheless be included in any notice of the plants of Palestine, as some of them supply important elements to the floral beauties of that land. The relation that they bear to the vegetation is nearly the same as that which we find them occupying in our flora; and then out of the thirty species recorded from the Holy Land are plants which are indigenous also with us.

The berberids are represented among our native plants by the common barberry, a shrub not infrequent in hedges and copses, and well known by its bunches of small yellow flowers and its yellow-colored bark and wood. It is a plant of interest in many ways. The school-boy amuses himself by exciting the fitful action of its irritable stamens, the botanist refers to its spines as examples of strangely altered leaves, and the agriculturist finds that his suspicions as to its deleterious influence on his grain crops are fully confirmed by the recent investigations of DeBary, which have established that the "smut," whose appearance is so much dreaded on the growing grain, is but another development of the "clustercup"

of the barberry. The barberry of Palestine is found in the mountain-regions, and is a different but closely allied species to our plant, which it resembles in general appearance. Two humble weeds belonging to this order were noticed long ago by Rauwolf in his travels, the one called lion's leaf from a fancied resemblance of its leaf to the imprint of a lion's foot, and the other Bongordia. Both have tuberous roots; those of the latter plant are boiled or roasted and used as an article of food by the Persians; while those of the former, sometimes called lion's turnips, are bruised and employed instead of soap in washing woolen garments. Both plants have been collected by all recent botanical travelers. They occur in cultivated fields throughout the whole of Palestine.

The water-lilies are found only in Lake Merom, this being indeed almost the only locality in Palestine in which they could find the permanent water necessary to afford them a suitable habitat. The Nile was celebrated for its water-lilies, but the most remarkable of them, the nelumbium, has, like its companion the papyrus, disappeared from its ancient habitat. It is found in temperate and sub-tropical Asia, from Persia eastward to China and Japan. Herodotus de-

scribes two water lilies in the Nile with sufficient accuracy to enable one to determine them as the nelumbium and the common white lotus. He says, "When the waters of the Nile have risen to their extremest height and all the fields are overflowed, there appears above the surface an immense quantity of plants of the lily species, which the Egyptians call the lotus; having cut down these, they dry them in the sun. The seed of the flowers, which resembles that of the poppy, they bake and make into a kind of bread; they also eat the root of this plant, which is round, of an agreeable flavor and about the size of an apple. There is a second species of the lotus, which grows in the Nile, and which is not unlike a rose. The fruit, which grows from the bottom of the root, resembles a wasps' nest; it is found to contain a number of kernels of the size of an olive-stone, which are very grateful either fresh or dried." Strabo also and Theophrastus mention the nelumbium as a native of Egypt. It was held in high esteem by the Egyptians, being used as an emblem of immortality, and often also made an object of worship. It was extensively employed as an architectural ornament, especially for the capitals of the pillars.

There are seven distinct spe-

cies of poppy known in Palestine, and of these three are the same as plants that are familiar to us. These are the common red poppy (*P. Rhoeas* of our corn-fields), *P. Hybridum*, with its globose bristly fruit, and *P. Agremone* with long bristly fruit. The yellow horned poppy ornaments the northern shores of Palestine as it does those of our country, and the blue-flowered *Roemaria Hybrida*, which is very rare with us is abundant in the corn-fields and cultivated grounds of the Holy Land.

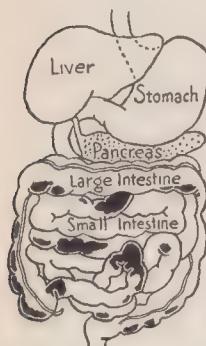
The fumitories are a group of inconspicuous weeds, with irregular flowers and much-divided leaves, which are abundant in waste places and fields. Eleven species have been recorded from Palestine.

Cruciferae.—The crucifers form a large and well-marked natural group of plants with a singularly uniform and easily recognizable type of flower. The cruciform arrangement of the four petals of which the flower is composed suggested the name of the order. The crucifers are most abundant in temperate and cold climates; they become mountain plants within the tropics. Europe and Asia Minor are their headquarters, but they are scattered over the whole globe; they always form part of the scanty vegetation met with in the most distant boreal regions, and on

the limits of the eternal snow on high mountains.

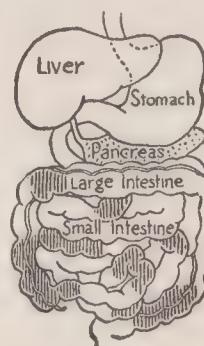
Whether as worthless weeds or beautiful garden flowers or valuable articles of food, they must have forced themselves on the attention of the most careless observers. The shepherd's purse, rockets and cresses are common wayside and hedge weeds; the small white flowers of the vernal whitlow grass, the smallest of our land-flowering plants, brighten many a dreary waste in early spring; our meadows and pastures are adorned with

the lady's smock, and our cultivated fields are too frequently overrun with rape, charlock and mustard. In the garden few plants surpass in fragrance the wallflower or the stock. But best known among the crucifers are the species which supply the important articles of food; the starch stored up in the roots of the turnip and radish, in the swollen stem of kohl-rabi; in the leaves of the cabbage and in the inflorescence of the cauliflower, make these plants valuable esculents.



The dark spots in the above illustration show decayed refuse lying in pockets in the folds of the intestines—often these pockets become enlarged and the refuse matter is held there for weeks—polluting the system with poisonous gases and congesting and irritating the surrounding organs—causing adhesions and all sorts of ailments.

Note also how refuse matter passes through intestines in small concentrated lumps.



The shaded portions in above illustration show how Vitamol Wafers add bulk to the refuse in the intestines filling the folds and pockets evenly, thus preventing their distortion and enlargement and producing full and complete evacuations.

No. 2033—Price, 50c per box. Family size, \$2.00.

Vitamol B Wafers are composed entirely of Roots, Moss, Sea Weed and certain parts of Milk, Grain and Yeast. They contain no mineral drugs of any kind. Their objective is threefold.

1. To add vitamin B and other organic salts to the diet.
2. To promote the bacteria Acidophilus and Bifidus.

3. To add bulk and roughage to the bowel contents.

Eat *Vitamol Wafers* as a preventive of congestion and crowding of the vital organs by a distended stomach and bowels filled with gas and fecal matter that should be discharged daily.

THE MUSTARD PLANT OF PALESTINE

The most curious crucifer in Palestine is one which finds its northern limit in the sub-tropical region in the lower valley of the Jordan.

The only cruciferous plant mentioned in Scripture is the mustard. It was referred to by our Lord on three different occasions, and occurs only in the Gospels where the narrative of these occasions are given. In the only instance when the apostles asked for a spiritual blessing from their Master, he replied, "If ye had faith as a grain of mustard-seed, ye might say unto this sycamine tree, Be thou plucked up by the root, and be thou planted in the sea; and it should obey you." Luke 17:6. Again, when teaching his disciples that no obstacle should be able to stand before a confiding faith in God, he said, "If ye have faith as a grain of mustard-seed, ye shall say unto this mountain, Remove hence to yonder place, and it shall remove." Matt. 17:20. And lastly, in the parable of the mustard-seed, the growth of the kingdom of heaven from the smallest beginnings to ultimate universality is compared to the growth of the mustard: "It is like a grain of mustard-seed, which, when it is sown in the earth; is less than all the seeds that be in the earth; but when it is sown it groweth up, and becometh greater than all

herbs, and shooteth out great branches; so that the fowls of the air may lodge under the shadow of it." Mark 4:31, 32.

In these passages the Saviour obviously refers to the smallness of the mustard-seed as a fact well known to his auditors. Indeed, the Jews used the phrase "small as a grain of mustard-seed" just as we similarly compare small things to a pepper-corn. The grain of mustard is not absolutely the smallest of all seeds, though it was popularly and proverbially so, and, moreover, the husbandman knew it as the smallest seed which passed through his hands. It is a small grain, producing a large result, the least of the husbandman's seeds becoming the greatest of the husbandman's herbs. This is the point of the parable, and gives the only sense in which the kingdom of heaven is like a grain of mustard-seed. "The mustard is a tiny seed which, sown in a favorable soil, shoots up and becomes to all intents a tree, so that there is no longer any proportion betwixt its 'shadowing shroud' and the germ from which it sprang. Such is the kingdom of heaven; such is the history of real religion in an individual mind,

in a community, in the world at large. Some word in season dropped into the ear or reverting to his memory, the desperado and blasphemer is converted; and that mustard-seed, that faithful saying is developed into the Pilgrim's Progress or the Olney Hymns. The one copy of the Scriptures which had been brought away from the ship Bounty, and which at last changed into a Christian community the mutineers and their children, was a mustard-seed. The little text,

'The just by faith shall live,' in the mind of Martin Luther, was the mustard-seed from which shot up the glorious Reformation. The cradle of Bethlehem, the cross of Calvary—that cradle so obscure, that cross such a 'foolishness,' such a 'scandal'—were each of them a grain of mustard-seed, the little and unlikely germ from which a tree of life has risen, extending its branches over every continent and inviting beneath its canopy the millions of mankind.'

BONESET

Boneset grows only in the temperate regions of our own Eastern and Middle States and was found in early Colonial days in every well-regulated household. Like hundreds of other remedies of every kind it was a secret imparted by the Indians to the White Race.

As a bitter tonic, its value was quickly recognized by members of the American Medical profession of those early times who have continued to praise it to the present day. Long before any list of approved medicinal herbs was published in this country *Eupatorium* or Boneset or Thoroughwort was a favorite remedy for colds.

The action of Boneset is similar to quinine, and there are a

great many herb practitioners who consider it far better than quinine in certain cases where prolonged treatment is necessary.

When you are again troubled with a cold and fever try Boneset Tea—but remember it must be fresh, last season's crop. Boneset Tea has broken many cases of fever over night. Taken hot, Boneset Tea acts as a diaphoretic; taken cold, its action is tonic.

Boneset Tea is made by placing a heaping teaspoonful of the Boneset Leaves in a cup of boiling water—and allowing it to cool. Then you drink the tea during the day and at bedtime—a large mouthful at a time. It can do no harm.

THE MIGNONETTE OF BIBLE LANDS

Resedaceae, Cistineae, Violaceae and Polygalaceae.—The mignonette family consists of a small unimportant group of plants confined to the Old World, and chiefly to the Mediterranean region, with the exception of two species—viz., *Reseda Luteola* and *R. lutea*. The first is the dyer's weed, which was at one time extensively cultivated as a dye-stuff, supplying, according to the different mordaunts employed, a green, yellow or blue color. Both species are without odor, and in this respect they are in striking contrast to *R. odorata*, the remarkable fragrance of which has given it a foremost place in our gardens for more than a century. This plant is cultivated everywhere in Palestine as with us, and though met with as an outcast from gardens has not been observed in a wild state. It is said to be a native of Egypt. Four other species occur in Palestine, one of which, *R. lutea*, is a British species, and another, *R. alba*, is naturalized in maritime localities in England. Several other species of this family, belonging to sub-tropical flora of the south, creep up from Arabia to Egypt to the desert borders of Palestine, and one with a berry fruit (*Ochradenus baccatus*) is found as far north as Jericho, as well as in the localities around the Dead Sea.

The plants of the rock-rose family are most abundant in the countries around the Mediterranean. They are small shrubs with simple leaves and large brightly colored flowers, which open only once, and then perish. They consequently never last longer than a day, expanding under the influence of the bright sun in the morning, and perishing with the setting sun in the evening. They do not open in dull weather when there is no sunshine. The largest genus in the family receives its name, *Helianthemum* (sun-flower), from this obvious characteristic. Their large pink or yellow flowers make many of the species favorites in gardens; but as they are southern plants, they are not quite hardy, and require protection in the winter. Our indigenous flora contains four species, all belonging to the genus *Helianthemum*. Three of these are rare and local plants, but the fourth adorns our dry pastures with its bright yellow flowers all through the summer months. Ten species are met with in Palestine; the large and beautiful flowers of several of them supply a more striking feature to the landscape than their humbler representatives at home. The large pink flowers of *Cistus villosus* are said to give a glow to Mount Carmel in April which

is not inferior to that produced by the heather on the mountains of Scotland. Although the rock-rose is not referred to in the Bible, it is generally believed that this odoriferous product is the substance referred to under the name lot, rendered "myrrh" in our version.

Few plants are greater favorites in the garden or the field than the violets. Our native flora contains eight species, the best known of which is the sweet violet that in early spring scents our hedge-banks and finds a corner in almost every garden. The species extends through Europe to Asia Minor, but has not yet been seen nearer to Palestine than Aleppo. Four species are, however, included in the indigenous veg-

YELLOW DOCK IRON TONIC

Those of you who have had occasion to use an Iron Tonic, Iron Pills or tincture of Iron at some time or other, will admit that this *inorganic* Iron Compound in whichever form you used it did not quite agree with you—it upset your digestion—caused constipation, and if the *inorganic* Iron came in contact with your teeth it discolored them. Your system undoubtedly needed the iron—but why take *inorganic* iron—when Mother Nature offers you organic iron in a large number of plants and vegetables?

eration of the Holy Land, but they belong to that northern flora which finds its southern limits in the mountain regions of the country. They are small plants and are only met with on the Lebanon and Anti-Lebanon ranges, and there high up among the cedars.

The milkworts belong also to the same northern type of flora as the violets. They are represented by three small plants, one of which (*Polygala vulgaris*) ornaments our grassy banks throughout the length and breadth of the land with its blue, white or pink blossoms. In Palestine there are two similar species, which occur in Lebanon, coming farther down the mountain-sides than the violets and almost reaching the shore at Sidon.





LEGENDS, AND THEIR USES

BOTANICAL EDUCATION IN AMERICA

When we contrast the great work done in the past by the champions and defenders of herbal remedies, in their efforts to make known to the public the qualities and virtues of botanical or vegetable drugs, with the half-hearted activities of those who now use and favor natural medicines, we are bound to have a better understanding of the reason why the remedies provided by the great laboratories of nature have been so commonly displaced by the medicinal preparations supplied by the laboratories of man. It is high time, indeed, for the friends of botanical herbs to raise their voices loud enough to be heard not only in the halls of Congress but by those members of the general public who are not acquainted with the medicinal possibilities and advantages of natural drugs.

The fact is that many members of the present generation are using chemical or laboratory products in the relief of their common and ordinary ills, not because they have any distrust of herbal drugs but for the reason that they have not been instructed as to the possible uses and benefits of botanicals. They have heard and seen so much about synthetic drugs, over the radio or in the public press, that they have lost sight of the great

truth that old mother nature still offers to her children the same natural medicines she has supplied to countless generations down through the ages. What is not appreciated today in this age of substitutes and synthetics, is the fact that nature is just as lavish now, in her offerings of natural drugs for the relief of human ills, as she was in the days of old. There is a crying need in this generation of a comprehensive course of popular education on medical botany.

Former generations, notwithstanding the comparatively limited means of spreading education, were thoroughly instructed in the medicinal virtues of plants, roots and barks, by men who not only knew their botany but had come to know the medicinal powers of herbal or vegetable drugs through actual experience and observation. They were so completely sold on the medicinal virtues of botanicals that they conceived it to be their duty to pass along to their fellow men the knowledge thus acquired. In many instances the teachings and writings of these early champions and defenders of natural drugs were inspired largely, if not wholly by a desire to advance the common welfare and to give material aid in man's never-ending battle against disease.

Such a man as we have just described was Rafinesque, mentioned elsewhere in this book and to whom his posterity owes a debt of gratitude, for his great independence of thought and particularly for his contributions to knowledge of botanicals in America. His great aim seems to have been to provide "a portable work of medical Botany for the daily use of medical students, physicians, druggists, pharmacians, chemists, botanists, florists, herbalists, collectors of herbs, heads of families, infirmaries, etc."

What Rafinesque had in mind, apparently, was the standardization of herbs and their common use as home remedies in the relief of ordinary ailments as well as a better understanding of their uses and possibilities by physicians, druggists and chemists. His feelings and belief in this connection were thus expressed:

"Medical Botany, teaching to know and appreciate the greatest number of articles employed in Materia Medica, is become indispensable to the enlightened physician. Vegetable Chemistry analyzes vegetable substances, discusses their actual principles and ascertains the equivalent or incompatible substances. Even pharmacy, by the aid of Botany and Chemistry, has become a science. Druggists and chem-

ists who sell vegetable articles or drugs, ought to be botanically acquainted with them, so as to distinguish the genuine kinds and detect the frauds or blunders of the collectors and herbalist."

Unfortunately we have no Rafinesque in this generation to remind us of the great variety of medicinal herbs and of the impressive number of their beneficial uses. To him every medicinal plant was "a compound medicine prepared by the hands of nature in the most suitable form for exhibition and efficacy in suitable cases." Incidentally, it would be hard to improve upon this definition of a botanical or herbal drug.

The Indiana Botanic Gardens is doing its best, in its humble way, to continue the great work done by Rafinesque and others to preserve and extend the ancient glories of botanicals, to the end that natural drugs may not become extinct. In this understanding the proprietor of these gardens feels that he is reasonably entitled to the encouragement and support of the public. Certainly he should be free, at least, from harsh restrictions and requirements in this service of supplying clean, fresh herbs to the public for home use at prices within the range of those who may not be able to afford the luxury of medical treatment in these days of modest incomes. Here

it is possible to obtain a generous quantity of any herb for the small sum of twenty-five cents. And if you prefer to purchase prepared herbal medi-

cines, rather than to do your own mixing and blending, we have a fine line of time-tested remedies for your selection.

ROOT AND HERB TEAS USED BY PHYSICIANS

Up to the period of about 1880 to 1885, the most noted physicians treated their patients with root and herb teas. This was rather a messy job and it had one bad feature for the physician, and that was that the patient often learned the roots and herbs used to treat his ailment and when he or anyone else in the family again became ill with the same ailment, they would gather their own herbals and treat their ailment without calling a doctor.

Perhaps this in part explains why the medical profession gradually has turned away from botanical or herbal drugs and has looked with more and more favor upon the medicinal products supplied by our modern chemists. It seems fair to say, in all the circumstances, that the gradual substitution of synthetic or chemical drugs for the natural or herbal drugs of our forefathers has not been due to any real lack of professional faith in the virtues of botanical medicines. Physicians of today realize, of course, there is no reason to believe that nature's plants, leaves,

roots and barks have lost the medicinal virtues with which they were credited by countless generations; that nature is constant and a never-ending source of supply in her vast laboratories, the fields and the forests.

But there are many factors which weigh against herbal drugs and medicines with the medical profession in these days. One is the wide advertising and strong propaganda in favor of chemical drugs. Physicians are supplied with free samples from laboratories and, quite naturally, are anxious to return the compliment where they can do so consistently.

Another circumstance that has operated against herbal drugs is the fact that they must be reasonably fresh to retain their medicinal strength and virtue. After a year on the shelves they deteriorate rapidly and may not be relied upon with any degree of assurance.

For some years pharmacists and drug stores helped the Doctors out in the preparation and distribution of their herbal

drugs and medicines, and in that way the professional use of natural or botanical medicines was somewhat prolonged. Gradually, however, the pharmacist has yielded to the high-pressure methods of modern advertisers, as well as to other influences, and transferred his favor to chemical products. As a matter of fact, the modern type of drug store, with its combination of lunch-counter, cigar stand, news stand, cosmetic display, etc., hardly is suited to the proper handling of botanicals. While such stores may have prescription counters and compound medicines for physicians, conditions behind such a counter in the average drug store of today are not particularly conducive to cleanliness and accuracy.

We are trying to save the day for the users of herbal

WINTERGREEN EMBROCATION

No. 35—Price, 50c per bottle.

A penetrating, powerful, pain-relieving Embrocation, the use of which is indicated in painful and inflammatory conditions of the limbs and joints, swellings, stiffness, results of previous exertion, exposure, muscular strain, etc. It can be used externally to advantage wherever the skin is not broken or too tender. In this valuable compound, the important ingredient is the genuine Southern Oil of Wintergreen, the pure distillate from Gaultheria Procubens, which explains the most favored results accomplished by the use of this effective pain-relieving Embrocation.

drugs and medicines by acting as a great storehouse and as general headquarters for things botanical. Here, for the small sum of 25 cents, you may obtain a generous quantity of clean, fresh herbs. And when we use the words "clean" and "fresh" we do so advisedly. In our thoroughly organized and equipped plant, operated by men and women who know and understand botanicals, we examine, test, classify, grade, clean and prepare herbs from all parts of the world, sending them out for just what we find them to be. Into the filling of every order, no matter how small it may be, goes the fruits of our labors through the years to preserve and perpetuate the ancient usefulness of the products of the herbal kingdom. Frankly, we feel we are entitled in some degree to the support of all those who still have faith in natural drugs.

MANDRAGORA OINTMENT

No. 151—Price, \$1.00.

A strong Analgesic and Anodyne Balm of powerful tissue penetrating qualities, that carries its effective action directly to the affected area. The main ingredients, the Mandragora and Iodine are known as a valuable synergistic combination indicated for relief in swellings of the tissue, joints, glands, strained muscles, tendons, in sprains or wherever its palliative effects are most desirable.

MOUTH WASHES AND GARGLES

One of the things modern science teaches is that the daily use of a good mouth wash and gargle is well worth the while. The belief now is pretty general that a person who keeps the membranes of his mouth and throat clean and free from irritation not only enjoys more comfort and satisfaction, but has a better chance of avoiding troublesome conditions that are liable to develop in that region, such as the common or head cold. While precise explanation of the ordinary cold is in dispute among physicians, it has been observed that colds often appear to start with or from an irritation of the mucous membrane which lines the mouth and throat.

And it does seem reasonable to believe that a clean, smooth and vigorous membrane really has decided advantages that appeal to our common sense. It is not at all hard to understand that a membrane which is not clean or in proper condition is a more likely lodging and developing place for the irritating particles with which the atmosphere of this industrial age is so heavily laden. The point is that the membranes of our mouths and throats cannot escape contact with irritating influences, which have multiplied with our increasing use of machines and gases, but that those mem-

branes naturally will have more resistance to irritation if prepared for the contact.

Obviously, a wash suitable for daily or frequent use must combine effectiveness with mild and soothing qualities. If a preparation is to discourage and relieve irritation, it must be capable of unlimited use without the possibility of harsh effects upon the delicate membranes to which it is applied. While there may be many preparations upon the market today which are effective and safe for occasional use as mouth washes, it is open to serious question whether many of those washes do more harm than good under steady use, because of their harsh cumulative effect.

But the person who uses a mouth wash, prepared from botanicals need have no hesitation about using such a preparation as often as he may wish to do so. He may be assured that he is dealing with no chemical substances which may prove harsh and injurious to delicate membranes. Best of all, the person who uses a botanical mouth wash will have every reason to anticipate pleasant and satisfactory results. He will find that these natural remedies clean and soothe at the same time.

We have a variety of excellent preparations for use as

Mouth Washes and Gargles. They are: Myra, No. 135 Mouth Wash, No. 311 Eucamint Liquid, No. 233 Pinol Spray.

Form the mouth wash habit and make it a daily practice. Remember, too, that the longer you hold a mouth wash in the mouth, the more chance it has of remaining in contact with

and benefiting the membranes. See that the wash reaches all parts of the mouth and has a fair chance of doing the work expected of it. If you are faithful and persistent in this, you will secure benefits that will give you a handsome return upon the small expense involved.

LIFE EVERLASTING

Life Everlasting is found in Canada and various parts of the United States, growing in old fields and on dry barren lands, flowering in July and August. Life Everlasting herb is also called Field Balsam.

Life Everlasting is an astringent and slightly bitter tonic. Irritations of the mouth and throat are relieved by chewing the leaves and blossoms, and if used in the same manner makes an excellent substitute for the tobacco chewing habit. It has a slightly bitter balsamic flavor that is pleasing to most tastes. Some mix it half and half with shredded Licorice Root—this sweetens and improves the taste.

The infusion is very simple to make, just steep a heaping teaspoonful of the herb in a cup of boiling water. Drink

one or two cupfuls during the day. All herb teas are made in this simple way.

Life Everlasting herb is also used as a voice tonic. This simple old Indian remedy consists of chewing the dried herb the same as one would tobacco, but swallow the juice. The Indian Medicine men always carried so much of this fragrant herb with them, that it gave them a peculiar, yet not unpleasant odor, similar to the flavor of Hickory Nuts.

Life Everlasting was much used by the Indians. It clears the voice in a most remarkable manner and it is said to create a desire to sing. Singers and speakers should try this. It will surprise and delight them. It is excellent for hoarseness, sore throat and mouth irritations.

WE WILL LIVE 200 YEARS OR MORE

"The human machine is such a marvelous mechanism, so wonderfully balanced, so well fortified with defensive mechanisms, with reserves and resources with which to meet emergencies that there is good reason for believing that a perfectly healthy human body under perfect conditions might easily bear the wear and tear of living for two centuries or even more. One able physiologist predicts that within a hundred years babies may be born that will live 150 years."

—From the Battle Creek Idea.

The fact that the span of human life gradually is lengthening, and that men and women now are living and retaining their mental and physical vigor far beyond the allotted three-score years and ten, undoubtedly is due in no small degree to increasing appreciation of the importance of proper elimination of the waste products of the body. It has come to be generally understood that one of the prime essentials of good health is the thorough and timely elimination, through the bowels, kidneys and skin (and also to some extent through the lungs) of the body wastes. This great truth, formerly known by only a comparative few, today is rather common knowledge, thanks to our modern methods of communication and publicity.

But even now the possible effects of faulty elimination are not generally understood. The average person knows that there should be a daily bowel movement and that there also should be urinary action, but he may not know that:

(1) A bowel movement does not necessarily mean that the eliminative functions of that organ (much less of the organs of elimination) are in full or satisfactory operation, and that use of a good laxative may be indicated.

(2) Elimination through the urine is just as important, and perhaps more important, than elimination through the bowels, so that use of a medicine to promote proper kidney action (known as a diuretic or stimulant diuretic) often is indicated in relief of faulty elimination.

(3) The pores of the skin really play an important part in nature's scheme of elimination, and a medicine to help keep them open (known as a diaphoretic) should be used when conditions so indicate.

(4) When one of the organs of elimination slows up in its intended function a heavier load is thrown on the other organs, in nature's efforts to take care of and compensate for this impairment.

(5) Medicines that combine the qualities of laxative, diuretic and diaphoretic have ob-

vious advantages in assisting nature to carry on her work of elimination.

(6) Herbal or botanical drugs and medicines are peculiarly adapted to use as eliminative agents, in the form of laxatives, diuretics and diaphoretics, because they act mildly and without the upsetting after-effects so commonly experienced in the use of chemical drugs. Herbal medicines represent medicinal drugs—

FENNEL

Fennel, *Foeniculum Vulgare*, is indigenous from the Caspian Sea to the Greek Peninsula and other Mediterranean countries, growing wild over a large part of Southern Europe, especially in the vicinity of the sea. It is also cultivated in favorable localities, as in Saxony, France and Italy. Charlemagne is said to have encouraged its cultivation. Its employment in Northern Europe has been from early times, as is indicated by the fact that Anglo-Saxon medical recipes dating from as far back as the 11th century give Fennel a place. The use of the seeds in domestic medicines in the form of an infusion, as well as its employment in bread-making, are commonly known.

they are agreeable to nature.

We have a long line of time-tested herbal laxatives, diuretics and diaphoretics, some of which combine all three qualities, or we can supply fresh, clean herbs from which you can make your own medicines at home, easily and cheaply. If you do not find in this book just the particular botanical or herbal medicine you have in mind, let us know and it will be a pleasure to get it for you.

Fennel Tea has a variety of uses and is an old favorite with many, who of course have their own ideas and beliefs regarding its virtues and possibilities. By some it is employed in the relief of gas colic in infants. One or two teaspoonfuls of warm Fennel Tea are given for the soothing effect.

Fennel Tea is made by placing two or three teaspoonfuls into a half cupful of boiling water. Boil only one minute, cover the vessel to retain the aromatic oil, strain and allow to become just warm. Sweeten slightly.

A little stronger Fennel Tea than this is fine for an eye wash and as a wash for external irritations. It also is of great service as a vaginal douche.



ALTHEA

Althea Officinalis, known to us as Marshmallow, was described by Dioscorides (194) under the Greek name signif-

SOME FALLACIES ABOUT HERBALS

The strange fact is that out of this attempt by chemists to isolate and identify the various medicinal agents in herbal drugs, and particularly because of the failure of these laboratory tests in many instances to reveal the presence of some therapeutic agent of recognized potency and remedial value, has developed a contention in some quarters that such herbal drugs do not possess the pow-

ing to heal. It has been used in domestic medicine from the earliest periods. Charlemagne, 742-814 A. D., demanded that it be cultivated in his domain. Althea grows throughout Europe, Asia Minor, western and northern Asia and adjacent districts, and although of little consequence in physicians' use is more or less employed in domestic medication in all localities. Its domestic use introduced this demulcent drug to early professional medication.

Althea is one of our finest demulcents. Made into a tea it is very soothing. Two or three heaping teaspoonsfuls of this root are used to a cupful of water; boil a few minutes and allow to cool, drink a cupful upon retiring at night or drink it during the day, a large mouthful at a time. It may be taken freely 2 or 3 cupfuls a day.

ers popularly attributed to them from time immemorial. A little reflection will demonstrate that this contention is without substantial foundation and must be rejected.

If man refused to believe what he could not fully understand—if he insisted in all cases upon a complete bill of particulars and a full set of specifications—many of nature's bounties and benefac-

tions might have to be rejected. Indeed, such a theory or position might cause man to abandon some of the beliefs and hopes which are his solace and comfort in these troubled days. Who shall take it upon himself

And do not results provide a better and fairer test than mere theories?

It may be surprising to some who read this book, to learn that many and indeed most botanical ingredients of a medicine do not reveal their identity under the usual or ordinary chemical analysis; that the chemist hardly is in position to say more than that a "vegetable residue" was obtained. Further, it may not be generally known that when a number of medicinal agents are compounded or combined in a medicine, the effects may be beyond satisfactory explanation based upon the known qualities of each ingredient. The fact is that a wholly unsuspected and unaccountable result may be obtained from such a blending. Indeed, some of the most val-

able contributions to the science of medicine have come through accidental or incidental discovery.

In these circumstances, let's not think for a moment of rejecting some herbal or botanical drug simply because chemists are unable to isolate and earmark its active remedial agents. If a drug or medicine will give us relief or good results, as it gave them to our forefathers, why concern ourselves with the scientific or technical niceties as to how nature accomplishes her purposes. Let us take comfort in the thought that nature is ever constant and unfailing and a part of the great infinite.

No. 514—Price, 50c.

Witch Hazel Compound—Made from fresh, green young twigs of the witch hazel shrub and Golden Seal. About 20 pounds of Witch Hazel are used to make one gallon—double strength. Best money can buy. Useful after shaving, for sunburn, ringworm, neuralgia, headaches, muscular soreness, and minor ailments.

BACTERIOLEUM

No. 187—Price, 50c.

Is an astringent and styptic application for boils, furuncles, that hastens the process of development, alleviates the intensity of the pain, checks the irritation, and its strong styptic action retards the usual spreading of the affected area. It induces a very rapid healing.



EARLY MEDICAL LORE

The earliest medical book of which there is any record in Indiana is called "The Indian Guide to Health." Dr. Leon G. Zerfas, of Indianapolis, owns the volume, and Dr. Edgar F. Kiser, of Indianapolis, describes it and other early Indiana medical publications in the September issue of the Journal of the Indiana State Medical Association. The guide was written by Dr. S. H. Selman, and was published in Columbus, Ind., in 1836. The title page describes it as a treatise on vegetable medical prescriptions "for use of all disorders incident to this climate." It was "designed as a guide to families and young practitioners."

Difficulty was encountered in learning anything about Dr.

Selman until Dr. Kiser unearthed some note books kept by George Pence, a Columbus historian, for many years an examiner with the state board of accounts. The Pence notes disclosed that Dr. Selman arrived in Columbus in the early thirties, and that in addition to being a physician he was a Baptist preacher. He dressed in the finest broadcloth, wore an elegant watch chain and was extremely reserved and dignified. A glass eye added to his prestige.

Dr. Selman prepared his own remedies, using a copper still and some retorts. He made frequent visits to the woods where he camped, Indian fashion, and collected the roots, herbs, berries, bark and leaves he used in his medicines.

Several remedies for severe colic were offered, yet the early physician decided that "of all the medicines I have ever used" the best was "garlic boiled in new milk. This prescription often relieves the quickest of any remedy that has ever been tried."

One of the more complicated prescriptions was as follows: "To keep down inflammation, you will get one peck of green plantain, the same of liverwort, the same of wintergreen, the same of burdock, the same of the blossoms of Philadelphia fleabane, the same of poke berries, the same of dogwood berries,

ries; you will put these ingredients together in a large kettle or still, boil them in fifteen gallons of water down to three gallons, then strain the liquid from the vegetables, add to the liquid two pounds of Epsom salts, one pint of the tincture of gum guaicum, one quart of hard cider, half an ounce of the rust of iron, the same of salamniac; you will now boil this down to one gallon, it is then fit for use; the patient may take from a teaspoonful to half a teaspoonful, three times a day, refraining from all strong diet."

MORMON VALLEY HERBS COMPOUND

This is a scientific compound of Indian and Modern Botanic Medicines. It is a scientific blend of herb simples that we offer with the greatest confidence as an alterative of the highest order.

The main ingredients of this remarkable preparation is a plant known and highly prized among one tribe of Indians as "The herb of the Sun" and Skookum Plant by another tribe. In Utah, it is called Mormon Plant. It grows in the valleys of Utah and as far south as Mexico. It is used in several widely advertised tonics.

This preparation has proven of such value that we can sincerely recommend it. When a certain preparation is widely advertised, it is usually over-rated; however, this particular formula surely is worthy of attention for any ailment in which these agents are indicated. It has the further advantage of being absolutely harmless.

Besides the Mormon Plant, this formula has other ingredients of proven quality making it one of the very best preparations we have.

Mormon Plant is the herb Nature has provided. Through using it a few days, you will be thoroughly convinced, and you will be thankful that we brought this herb to your attention.



CHICAGO SAVANT PRAISES SKILL OF INDIAN DOCTORS

A stirring tale of penetrating jungles along the Amazon River in regions never before visited by a white man was received yesterday at the Field Museum from Llewellyn Williams of the botanical staff. He still is in the Amazon region at the head of a party of Inca Indians.

Mr. Williams made a trip by canoe and afoot from 325 miles into the interior of the Nanay region and returned by another route to Iquitos, Peru.

Mr. Williams and his party went into the jungle with provision packs on their backs,

hacking their way with bush knives. Camps were made in abandoned Indian huts made of palm leaves. Often it was necessary to wade for miles knee deep in mud and water and frequently it was necessary to swim across streams.

Mr. Williams collected exotic arboreal and plant material for addition to the foreign woods and plants collection of the museum. He obtained specimens of the sugar tree which has a sweet, edible resin with the consistency of real sugar and the "lard tree," which excretes an oily substance which

in all properties is a close affinity to animal fat lard, the botanist reported.

"A remarkable number of medicinal plants grow in the forests and the Indians possess a wealth of knowledge of their properties for curing various ailments, ranging from simple nervous diseases to complications of the internal organs," Williams' report said. "From these plants they have developed specific remedies, which apparently are really efficacious. They also have developed fish poisons which, thrown on the surface of the water, kill all

the fish in the vicinity and make the obtaining of a fish dinner easy. The poisoned fish do not harm the human consumer, but often animals drinking the contaminated water die."—News Clipping.

NOTE: And yet these wild people are referred to as ignorant savages. Who is more ignorant than the person pickling his insides with poisonous, or unfriendly mineral drugs? How long are you going to continue doping yourself with secret prescriptions—Aspirin, Salts, Phenolphthalein and what not? And it is so easy to make a medicinal tea from roots and herbs. You merely place a good pinch of the roots and herbs in a cup and pour on boiling hot water and allow to cool. Then drink the entire cupful during the day—a large mouthful at a time, or the entire cupful may be taken upon retiring at night.

LONG LIFE AND HOW TO ATTAIN IT



At this time this problem is occupying the minds of scientists throughout the world about as much as it is to prolong or regain one's youthful appearance.

With reference to the problem of longevity a recent remark of Dr. William H. Welch of Johns Hopkins University is particularly interesting. He says, "It is not more knowl-

edge which is needed at present, so much, as a more universal application of the knowledge already attained."

The source of old age is believed by some scientists to reside in the tissues. Herein are first observed the symptoms of senility. Greater knowledge of how to care for these tissues should aid man considerably in his fight against the effects of old age.

Dr. D. Kotsovsky, of Kishineff, who supports this theory, recently said before the International Physiological Congress at the Harvard Medical School:

"The tissues of the brain are the first to be affected by the lack of proper food and by the

loss of sleep. They are the first to stop growing and the least inclined to regeneration. Their organization is so complex that it is difficult to give them the right sort of nourishment. Their health, furthermore, rests more upon other organs upon which they are dependent. They are likely gathering places for poisons from their own waste products.

"Sleep is highly important to these tissues not only during growth, but in their recovery from wear. Heredity is the most important factor of all in determining the quality and powers of the tissues and the organs upon which they depend. Sleep, nourishment and

heredity should be the starting points for experiment in investigation of the problems of growing old."

Science is now eagerly studying the mechanism of death in order to counteract it with a therapy of life. Dr. Eusebio A. Hernandez, of Paris, goes so far as to claim that death may perhaps not be unavoidable!—From an article by A. Henderson of the King Features Syndicate.

NOTE: You will note that this scientist believes the "brain tissue" to be the first to retrograde and the hardest to respond to regenerative treatment. That the herbal kingdom will eventually yield a plant substance that will rejuvenate the brain tissue, I have not the least doubt, because it is an accepted fact that all vitamins and organic minerals originate in plant life.

HEAP GOOD MEDICINE

On one of my hunting trips in Northern Wisconsin I made the acquaintance of several Indian Medicine Men. One of them a peculiar old fellow became very friendly with me. We chatted for hours on Indian Medicine and in the course of our conversation I asked him what in his opinion would be the best medicine to prolong life and overcome disease.

His answer interpreted in plain English was—a Stimulant to Digestion, Assimilation and Elimination—those three words mean a whole book full.

If we stimulate Digestion and Assimilation—our food makes rich blood—if we stimulate elimination, we throw off all impure matter. That is all that is necessary to enjoy good health. These are facts that can be understood by anyone. Most of our herb teas qualify in this respect and in addition—they contain the vital elements—organic minerals and vitamins.

Probably the very best medicine we ever produced—that comes nearest of having these qualities is our Sonora Tonic.

INDIAN MYSTERY PLANT

Gentlemen: Your letter and check and relies all received with much satisfaction. For all this I heartily thank you.

Now I will try to give you some of the history of the Peyote. I gained my information from the best authorities I could find. I spent a while with one of the greatest Peyote leaders in the United States. I also spent a whole night at a Peyote meeting. I then went to Old Mexico and visited an experienced man down that way. The beginning of Peyote for medicine is absolutely unknown. There is a brief history about how the use of the medicine was made known to the Mescalero Apache Indians but it was used by other tribes long before that.



The Mescalero Apache story is like this: "Once in Mexico in the state of Coahuila, about the center of the state, an Indian of that tribe went hunting in that hot dry country and got lost for two days, going without food or water. He was

about to die from hunger, thirst and fatigue and seeing a tree on a certain hill he went there for shade.

There he lay down and wished to die. While stretched out on the ground he felt something cool touch his hand; it was the green Peyote. He took some and ate it, there was water in it and it also served for food. While he lay there the "Holy Spirit" came and took the spirit of this Indian and carried it to the Spirit World where he was taught concerning the good medicine by an angel who was later supposed to be Christ. The Indian was also taught to train his blood-thirsty tribe to live better. But they ate much medicine only for the use of murder and stealing. The Lord being much displeased with them let another tribe almost exterminate them. The remnant is now on a reservation in south New Mexico. It was taught later to the Comanches and they stopped doing bad and made a success with the religion. The religion began to grow in Oklahoma and was sent North. It is known now in Canada. The Peyote religion like the Protestant faith is much divided. Some of the Indians think Peyote is God. Others say it is a holy herb made by God to be useful for them in all diseases and that it will make peo-

LEGENDS, AND THEIR USES

ple better and wiser if they use it. Some of them only use it as a medicine like Golden Seal and of course some have little or no faith in it.

Peyote or something like it was used by those progressive people of Guatemala and Southern Mexico long before Ixtlilxochitl was born. Very few people know who he was, but Fernando de Alba Ixtlilxochitl was grandson of the last king of Tezcoco from whom he inherited all that was saved of the records in the public archives. He translated these records early in the sixteenth century. His works are more extensive than those of any other writer covering the whole of Nahua history. Now the Nahua Empire was at its best in or about the same time Christ was on earth. One of the most interesting events written by this Indian writer is as follows: "One hundred and sixteen years after this regulation or invention of the Toltec or Nahua calendar, the sun and moon were eclipsed, the earth shook and the rocks were rent asunder and many more things and signs happened." This was in the ce calli which chronology being reduced to our system proved to be the same date when Christ our Lord suffered, 33 A. D.



Those ancient people used herbs for fevers and other diseases that were so common in Central America. It is true that the Indians have had much success with the Peyote medicine. I am not able to say which it is that causes them to be cured of consumption and other diseases which are often severe. It may be Peyote itself and it may be the great faith they have in God and the medicine combined, but one thing sure they do have success with it in some way. The Peyote eaters are all I ever saw yet very healthy and strong.

For snake bite they carefully cut where the teeth were and then apply a poultice of green Peyote, then they eat several green Peyotes and soon put on a new poultice. Best to use green and fresh.—R. C. C., Independence, Mo.

NOTE: We can furnish the live growing Peyote Plant at \$1.00 each. It is sold by us merely as a curiosity. We have no dried Peyote and will not sell more than one plant to a customer.

YARB TEAS VINDICATED

In an address before the New Jersey Pharmaceutical Association at Atlantic City last week Dr. Ivor Griffith of Philadelphia, editor of the American Journal of Pharmacy, spoke up for the garden herbs of our great-grandmothers' time. "A host of herbs and parts of herbs that have served the world for centuries with their healing ministrations have been too much neglected," he declared.

A century ago most housewives living in the country were adepts in the preparation of "simples," as their remedies were called, from the fact that each herb was supposed to be good for some ailment or physical disorder—"simple" cures. Pharmacy has made clear that all herbs do not possess miraculous powers, but a good many of them have arrived in the pharmacopeias and are in regular standing. The Indians believed in herbs and still do; a good many medicines have, today, an herb basis. As Dr. Griffith said, plant drugs have stood the test of time far longer than have the scalpel or virus or vaccine. People still take doses in great variety and even the so-called "patent medicines" have a basis in well-known drugs extracted from herbs. As for the seasonings used in cooking, they mostly are herbs.

The very names of some of the old herbs, bring back memories of forgotten days. Basil, marjoram, mustard, burnet, lavender, sage, tansy, chervil, angelica thyme—what fragrant days they were! Some kitchen patches were called "Gardens of Heaven"—rightly, as all poetry is right. Some people with sound ideas of living still keep herb gardens and their neighbors rejoice with them. Not much space is needed; some fifteen by thirty feet is all that is necessary to produce a great variety. The caraway seed, so popular with many, is an herb; so are chives and parsley. There are love-in-a-mist, or fennel; the seed of the coriander, summer savory, mint, anise, even horseradish—all herbs. Also there are tarragon, rosemary, rue, the latter two with highly sentimental connotations. From some of these the ancient "yarb teas" were made, comforting to the soul; from others the "bundle o' yarbs" present in all properly administered stock-pots. Alas! even the stock-pot itself has almost disappeared before the onslaught of canned soup and sauces!

Old cookery books, perusal of which today makes the mouth water, were grandly filled with herb seasonings, and with meticulous directions as to how to prepare them for

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their royal progress from garden to table. In these days one can only marvel and grow reminiscent on reading how they made "Spirit of Soup Herbs," a potent affair of lemon thyme, winter savory, sweet marjoram, sweet basil, shallots, celery seed and lemon peel, infused for ten days in a pint of brandy. The effect of this potion must have been electrifying, to say the least. Just what it was used for this column does not know, or care; it is worthy of note for its historical character.

We seem to have wandered from the original thought—the value of herbs in the pharmaceutical world. But who would not wander from such unpleasant subjects as medicines and their application when old-fashioned herb gardens float into ken? One only can indorse the stand taken by Dr. Griffith and try—perhaps unsuccessfully—to become rhapsodical over youthful imbibings of flaxseed tea.

L. H. P.

(Newark News, June 22, 1931.)

BRIGHT'S DISEASE

More than twenty years ago a young surgeon, practicing in New York City, feeling indisposed called upon one of the leading physicians of the city for examination. The examination disclosed albumin and casts and he was told that he had Bright's disease and must be very careful. The surgeon sought advice from various colleagues and finally met a physician who told him that he must learn to live "biologically;" and through his instructions he discarded smoking, the use of tea and coffee and the use of flesh foods and adopted a thoroughly biologic mode of living, with the result that in three months all symp-

toms of Bright's disease disappeared with the exception of the slight appearance of albumin now and then. For more than twenty years this surgeon has been very active in his profession and today is still active and apparently enjoying perfect health. His kidneys have been in part destroyed by Bright's disease, but by lightening the burden of work required of his crippled kidneys he has been able to enjoy excellent health, to make good in his profession and has apparently many years of useful activity still ahead of him.—From *The Battle Creek Idea*.

NOTE: You cannot live "biologically" on a diet lacking vitamins and organic mineral salts.



THE BIBLE RECOMMENDS HERB MEDICINES

"And the fruit thereof shall be for meat, and the leaf thereof for medicine."—Ezekiel 46, v. 12.

Solomon may be termed the Royal Botanist, for "he spake of trees, from the cedar in Lebanon even unto the hyssop that springeth out of the wall." Josephus tells us of his proficiency and thorough acquaintance with the nature and beauty of plants. What a pity that Solomon's book of Botany is lost! If we examine the Scripture account fairly, we shall have no difficulty in making out "A Plea for the Botanic Practice of Medicine."

The vegetable kingdom was the source of sustenance to man and beast, and is said to contain everything necessary for preserving life: "To you it shall be for meat." The prophet Ezekiel (xl., 12) cheers the captive Jews with songs of hope, and points them to trees whose fruit shall be for meat, "the leaf thereof for medicine." In John's vision of the tree of life the leaves were "for the healing of all nations." We find hyssop and other herbs distinctly specified and their medicinal properties set forth as symbols or types of spiritual blessings.—"The Herb Doctor," England.



PRICKLY ASH—HANTOLA

The western tribes of American Indians, since time immemorial, have used Prickly Ash, or Hantola, with excellent results for gas colic, cramps. Prickly Ash, or Hantola, blooms in April and May, before the appearance of leaves. It is a reliable diaphoretic, producing sweating in profusion.

Its value was fully recognized by Dr. King in 1849. We suggest using Prickly Ash as a Tea, with a mixture of Burdock, Black Cohosh and Poke Root.

HERB KEEPS JAPANESE MARCHING

By GEORGE WITTE

In their recent double-quick drive through Manchuria, as during their war with Russia in 1904-05, the Japanese demonstrated their ability to endure hardships and defy the Napoleonic maxim that an

army travels on its stomach.

A generation ago when Nippon defeated the Russian colossus, the world said admiringly that the little oriental soldiers could live for days on a handful of rice.

During the campaign in Manchuria the Japanese again pushed on through difficult territory without pausing to establish their lines of communication to assure the smooth flow of their provisions.

An explanation of this seemingly unmilitary course was offered by E. A. Palmer, of New York, who has spent forty years in South America.

The answer, he said, may be found in the fruit of the guarana plant which grows in the regions of the lower Amazon in Brazil.

"Instead of asking, as the hungry American doughboy does, 'When do we eat?' the Japanese soldier takes from his pocket a stick of guarana paste and whittles off a few chips which are sufficient to give him strength to keep on going for a few hours longer," explained Mr. Palmer.

* * *

The Japanese settlers in Brazil learned the secret of the concentrated food value of the guarana plant from the Maues and Munduruous Indians. These aborigines are able to travel through the jungles and across mountains for 100 miles at a steady running

pace and with a stick of guarana as their only food.

The guarana sticks look like licorice and are just as hard, and the Indians use the bony tongues of Amazon fish to scrape off a handful of fragments which they swallow, then continue on their way.

Until recently, the annual production of the guarana fruit was only between sixty and eighty tons annually, but now it is being cultivated far more extensively, with the Japanese owning a large number of the new plantations.

The guarana is a climber of the Sapindaceas family, and, according to South American legend, its nutritious and stimulating qualities were first discovered by the Incas three centuries before the white man first set foot in the western hemisphere.

The fruit of the plant resembles a hazelnut, and its essence has been known and used for medicinal purposes by American and European pharmacists for 100 years because of its tonic properties.

Mixed with water and sugar, it makes a stimulating beverage which the Brazilians drink before breakfast and in the afternoon during the hot season.—New York "World-Telegram."



SWEET FLAG

Many of the older folk need no introduction to Sweet Flag, one of the most valuable of medicinal herbs. Some of you can remember when it was used exclusively as a table condiment.

Right now this interesting marsh plant is just sticking its sword-like leaves out the marsh soil in which it grows. When it is ready for harvesting, its leaves will produce a pleasant pungent flavor and fragrant odor when crushed. This is one of the best ways of distinguishing it from other flags that grow in the same sort of muck ground. The root, and not the leaves, is the part that is used medicinally.

That authoritative book, the *Materia Medica*, describes the virtues of this plant as follows: "Sweet Flag or Calamus is stimulative, carminative, tonic and aromatic and of ex-

cellent service in dyspepsia, colic, chlorosis and certain fevers. It improves the flow of gastric juice and relieves gas and sour stomach.

Women who are afflicted with backache and cramp-like pains report quick relief and wonderful benefits from the Sweet Flag tea—and it is so easy to make. Here is the formula: Take 2 ounces Sweet Flag, 1 ounce Black Cohosh, 1 ounce Sassafras Bark; mix these together—then take one heaping teaspoonful of this mixture and place in a cup of water, bring to the boiling point, let it cool and drink the cupful during the day, a large mouthful at a time.

We can furnish the fresh Sweet Flag and any other botanical at 25c per box, so the three for 75c.

Sweet Flag or *Acorus Calamus* in the domestic medica-

tion of India, is recorded from the very earliest times. It is sold commonly in the bazaars, and Ainslie (7) in his *Materia Medica of Hindoostan*, 1813, states that in consequence of its great value in the bowel complaints of children, a severe penalty was placed on the refusal of any druggist to open his door in the night to sell Sweet Flag when demanded. The antiquity of its use is shown from the fact that it was one of the constituents of the ointment Moses was commanded to make for the use in the Tabernacle (Ex. xxx), while the prophet Ezekiel says of the commerce of Tyre, "Bright iron, Cassia, and Calamus were in the market." Theophrastus (633) mentions Calamus, and Celsus (136) nearly two thousand years ago, refers to it as a drug from India. In the sixteenth century Amatus Lusitanus (16a) reports it as imported into Ven-

ice, and in 1692 Rheede (547) figures it as an Indian Plant under the name of Vacha, the same name being still applied to it on the Malabar Coast. From its tropical home, Sweet Flag has spread until it is found now in all temperate climates suitable for its growth, the market supply coming mainly from Southern Russia, through Germany. The therapeutic use of Sweet Flag in pharmacy and licensed medicines, as with other like substances, is a gift of empiricism founded in the far distant past.

Sweet Flag or Calamus is excellent for gas cramps, and colic for children. It is also of great service to adults. For sour stomach, gas, etc., it may be chewed—a piece the size of your thumbnail. It is harmless and may be taken as desired. Its properties are: Stimulant, carminative, tonic and aromatic.

SAME OLD STORY

It is common knowledge that in this generation there is no little jealousy on the part of practitioners of the older or established methods of relieving human ailments toward the advocates of newer or radically different measures, and that this feeling frequently flares into bitterness. There is an inclination among some members

of the older schools of medicine to view with derision the new theories advanced by other groups of practitioners, and a sense of duty to warn the public against the alleged unsoundness of the views advanced by such "upstarts."

But this tendency is as old as the practice of medicine itself. In the days of Plato, we

are told, physicians of the "empirical" school (who relied on actual experience or observation alone) made fun of the practice of medicine by the slave class. The physician of the free-born class evidently could not appreciate the possibility that a mere "slave-doctor" could have any real understanding of disease or of its relief. To quote Plato in this connection:

"If, during such a discussion (between a free-born patient and a free-born practitioner) one of these physicians

AN OLD PHARMACIST'S SPECIALS

For biliousness associated with Constipation, use Mayapple Root. For bruises, etc., use Yarrow and Mormon Valley Herbs as a wash. For upset stomach, try Gentian Root Tea. Use a heaping teaspoonful of any of the above to a cup of boiling water and make as you would ordinary tea. A pinch of Sassafras Bark of root may be added to improve the taste of any of the above. It is harmless and beneficial.—Writes R. H., an old Pharmacist of Burlington, Wis.

who practice medicine empirically, knowing nothing of speculative research, should encounter such a practitioner, (slave) he would burst into laughter and speak to him in no other language than is ready to be uttered to the majority of the so-called physicians. He would say: 'You stupid dolt! You are not treating the sick patient, but are imparting to him instruction, almost as though he was desiring to become a physician and not to be in health.'"

No. 416—Bottle, 50c.

Vanishing Balm—This preparation dissolves or softens the hardened cuticle of corns, warts, etc., and with continued use they disappear.

No. 510—Price, 10c.

Tonail Wax—For ingrowing toe nails. This article should be found very useful to persons suffering in this way.



BUTTERNUT BARK LAXATIVE

Butternut Bark has been proved a very fine laxative for the aged and middle aged where no drastic action is tolerated. Only the inner bark of the root of Butternut is used. When this first is uncovered it is a pure white, but upon exposure to the air and light it becomes yellow and finally a deep brown. This change of color is due to the organic elements it contains. Butternut Bark is a wonderful laxative and does not gripe.

It is especially valuable to the aged and middle aged when mixed with equal parts of Rocky Mountain Grape Root, Senna and Licorice Root. It is just about as fine a laxative tonic as can be made. Try this

formula. It is as harmless as any laxative can be. It may be given to children. Butternut Bark and Rocky Mountain Grape Root may be used in many combinations of roots and herbs. They are absolutely harmless. The ingredients once more—equal parts of Butternut Bark, Rocky Mountain Grape Root, Senna Leaves and Licorice Root. We can furnish any of these ingredients at 25c per box. The combination would cost you \$1.00. The directions for making this or any other tea are always the same—one or two heaping teaspoonfuls of the mixture to a cup of boiling water. The whole cupful may be taken at bedtime, if desired, or as you desire.



Mexicans, living in the parched desert regions under a tropical sun, refresh themselves with "Mexican Mate," an ingredient of Sonora Herbs. It gives them pep and stamina.

Properties—Stomachic, very mild Laxative, Carminative, mild Diuretic and Alterative.

The main ingredients of this remarkable formula are: Para-

SONORA

guay Tea, Mexican Mate, Purple Lucerne, Damiana, Yerba Santa, Sweet Flag, Yellow Dock, Boldo Leaves, Gentian and other botanicals.

Sonora is a pleasant, bitter-sweet herb tea that will relieve headaches and biliousness due to inactivity of the bowels and derangement of the stomach.

Price—Sonora Herbs 50c per box.

Sonora Tablets 50c per box.

Sonora Liquid \$1.00 per bottle.

IRISH MOSS—NATURE'S PRODUCT

Irish Moss, also called Carrageen, is technically known as Chondrus Crispus. It is one of the groups of aquatic plants that is raked from the submerged rocks of the sea. After the Moss is collected, thoroughly washed and cleaned in fresh water, it is dried in the open air, and then packed.

Irish Moss abounds in mineral salts and is especially rich in organic Iodine. Many palatable dishes and drinks can be prepared from it. When cooked, it becomes a gelatine or jelly; a nitrogenous, proteid or albuminous substance, somewhat similar to meat, cheese, white of egg, beans or peas. The vegetable gelatine made from Irish Moss is so much more appetizing, hygienic and wholesome than the commercial gela-

tine which is of animal origin. The vegetable product is to be preferred, and it is a well known fact that animal gelatine is not safe for eating.

Irish Moss can be used raw, or prepared as gelatine in any dish. It will make a simple, good dessert, and takes the place of custard for those who are unable to eat eggs. If for some reason or other it is desirable to increase the consumption of milk, the Blanc Mange (vegetable gelatine) is very useful. Irish Moss is excellent eaten in any form, but it is especially good for simple goitre, on account of the great amount of Iodine it contains.

If Iodine is not especially desired, the moss that remains after cooking and straining may be used over again, be-

cause the gelatine and mineral elements are not all extracted by the first cooking. This makes it a very economical food. The gelatinizing power of this sea-moss is at least ten times greater than that of animal gelatine.

Iodine, one of the mineral salts which is invaluable in the chemistry of the human body,

is found largely in the fluids of the body, and especially in the secretion of the thyroid gland. Iodine has a decided influence upon the human organism in health and disease. Being a rather powerful agent, only a small quantity is present, but this small portion is absolutely necessary for proper functioning of the human body.

IRISH MOSS RECIPES

Blanc Mange (Vegetable Gelatine)

1 quart milk
1 level tablespoonful honey
 $\frac{1}{4}$ of an ounce, or $\frac{3}{4}$ cupful of loose Irish Moss

Wash the moss thoroughly and drain. Place in a dish and pour one-half cupful of water over it. Let stand until the water is absorbed by the moss. Now put the moss into a double boiler and pour the milk over it. Let simmer for 30 minutes, finally bring to the boiling point and remove at once. Then strain through a piece of clean cheesecloth to remove dregs; then add the honey and any other ingredients for flavoring. Turn out into cold molds or cups, and let stand until cool.

The honey may be omitted if desired. For chocolate flavor

stir in a tablespoonful of chocolate. Add either vanilla, nutmeg, lemon or orange powder, lemon juice or almond flavor to suit taste, although not necessary. Two or three egg yolks will improve the flavor and appearance of the Blanc Mange, as well as its medicinal and dietetic value. The stiffness of the jelly can be regulated by using more or less moss.

Any preserved or fresh fruit or berries can be served with the Blanc Mange; bananas are very good with it. Wagner's fruit juices, genuine maple syrup and extra milk can be poured over it if desired. This dish will be a treat for the whole family. Try it.

Irish Moss for Coughs and Colds

1 pint of water
About $\frac{1}{4}$ ounce moss
1 tablespoonful honey
Juice of 1 lemon

Wash the moss thoroughly and drain. Then put into a kettle and pour in the water, covering the moss. Now let

LEGENDS, AND THEIR USES

simmer for about 30 minutes, or until slightly gelatinous. Strain, add honey and the lemon juice to suit taste. This is very soothing to the throat.

Irish Moss grows on the submerged rocks in the sea. It is washed, dried in the sun, and

shipped to us. We analyze it, sort it, mill it, and pack it in our regular 25c size boxes.

We can furnish Irish Moss either whole or powdered at 25c per box, or in tablets for \$1.00 per 200 tablets.

SLIPPERY ELM—HAS MANY USES

In our boyhood days, we lads were fond of chewing the inner bark of this tree, never dreaming of its medicinal value. Surely many of you have done the same. We called it Slippery Elm on account of its mucilaginous or slippery taste.

Slippery Elm is demulcent, emollient and nutritive. An infusion or tea of this bark is of wonderful service in irritation of mucous surfaces upon which it has a very soothing influence. It is absolutely harmless and may be given to children freely.

Slippery Elm tea or any other herb tea is made by placing a heaping teaspoonful of the Elm or any other herb in

a cup of boiling water—let it cool, and it is ready for use.

Externally the infusion or tea is especially valuable for rough and chapped hands and face. It leaves the skin soft and smooth. As a poultice there are few articles that can equal it for irritations, as in boils and old ulcers, etc.

If a pinch of Golden Seal is added to this infusion, it greatly improves its value, especially if the tea is taken internally or used to wash open wounds.

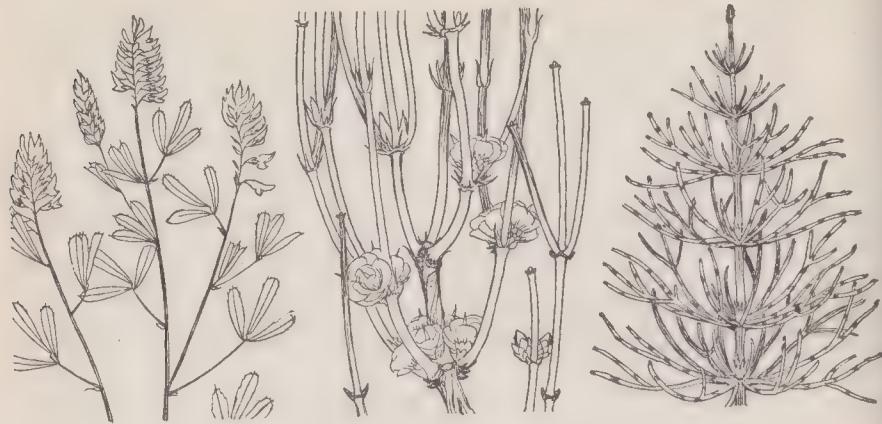
We do not send free samples of any botanical, but I will gladly furnish you with any root, bark or herb at 25c per box. We do not put up any smaller quantity.—Indiana Botanic Gardens.

No. 144—Price, 50c.

Foot Balsam—Traveling men, clerks and all who are on their feet for many hours will find in this the relief they have been looking for. It is astringent and soothing. An ideal application for sore, irritated, tired and sweaty feet.

No. 140—Price, 50c.

Mint Hand Lotion—An ideal lotion for chapped and rough hands. Helps make them softer, smoother, and whiter almost overnight. Try it once and you will never be without it.



CALCIUM

An additional source of Calcium and other minerals needed by the human body: Take a handful of each of these herbs—Buffalo Herb Leaves, Mormon Valley Plant, Horsetail Grass and Sassafras Root and mix. Of this take a heaping teaspoonful and bring to boiling point in a cup of water,

strain and drink a cupful of this tea during the day, a large mouthful at a time. It is very astringent and will pucker the mouth, but it is good. May also be used as a wash for external irritation. For this latter purpose, make it extra strong. It is harmless.

LEST THEY FORGET

The attorneys who represent the various agencies of the Federal Government in the enforcement of the laws and regulations which cover the manufacture and sale of drugs and medicines really hold in their hands the fate of many a business, large or small as the case may be. If they direct the institution of a regulatory action against some firm or individual, the business involved

may be seriously handicapped or perhaps destroyed as a result of the loss of public confidence, inability to obtain essential credit, and general interference with routine operations, even though a court ultimately may find against the contention of the Government in its dispute with the firm or individual involved. For those reasons, the solicitors for the several Federal agencies

LEGENDS, AND THEIR USES

charged with the carrying out of the will of Congress as to the manufacture and sale of drugs and medicines should exercise the highest degree of care and caution in that connection, lest an unnecessary and irreparable injury be done. May they always keep in mind the high tribute paid to them, and to the Federal Bar generally by Chief Justice Hughes when he said:

"As Uncle Sam's lawyers, you reflect the extraordinary development of the administrative agencies of Government. To some, you may appear to be the living symbols of bureaucracy. I think that, if in your special tasks, representing the greatest of all clients, you are true to the standards of your profession, you may well turn out to be the protectors of society from bureaucratic excesses."

* * *

"In your departments, you are the interpreters of the law, not in selfish interest but in the public interest. You are not the employees of officers but of the Government. You are not the wards of politicians but the guardians of society. You are the servants of the laws and not of men. It is not your privilege to bend or distort the law to serve either public or private ends but to administer the law as it is. You deal with

*its unavoidable complications; you seek to resolve its ambiguities; you subject the endless and sometimes burning controversies that come before you to cool and impartial analysis. You give no favors and you fear no antagonists; you unmask pretensions, expose fallacies, and frustrate evasions. That is your high calling as Uncle Sam's lawyers, and I congratulate you upon your client and your opportunities, but only as you measure up to them by unwavering loyalty to the law. It is in this sense that I find in your expert, astute, and high-minded efforts the saving salt of administration, the protection against those stretchings of the law which give play to tyrannical impulses, and against the abuses defecting administration through political policy of favor. * * **

*"The solicitors in the various departments may render, and I think are rendering, an important service in keeping down the volume of litigation by not attempting to force statutes to an extreme construction and by a willingness to take a reasonable measure of responsibility and thus to avoid the placing of an unnecessary burden upon the courts. There is abundant opportunity for good sense even in administering laws. * * *"*

HOW TO ORDER

Send all orders direct to Joseph E. Meyer, Indiana Botanic Gardens, P. O. Box 5, Hammond, Ind. You can then be sure to receive strictly pure, fresh herbs.

Five Free Almanacs for Your Friends

We will send free almanacs direct to five of your friends whom you think will be most interested. Let your friends know that they are getting this almanac through your courtesy. Mail names to Almanac Dept.

How to Make Medicine from Plain or Mixed Herbs

Just place a heaping teaspoonful of any herb or herb mixture into a cup of boiling water; let it stand until cold. That's all. Drink one or two cupfuls a day; a large mouthful at a time.

How to Measure Dry Herbs

Eight heaping teaspoons of dry herbs may be used when 1 ounce is stipulated—or 1 teacupful of dry herbs may be used to make 1 pint of medicine.

Liquid Measure Used in This Book

2 teaspoonfuls equal 1 tablespoonful.

4 tablespoonfuls equal 1 ounce.

16 ounces fluid equal 1 pint.

64 tablespoonfuls equal 1 pint.

128 teaspoonfuls equal 1 pint.

How to Make Medicine from Our Mixed Formulae

Directions—Steep a heaping teaspoonful of our mixed herbs into a cup of boiling water, let stand until cool. Drink cold one cupful during the day; a large mouthful at a time.

Use 2 or 3 cupfuls a day if no results are apparent after a few days' use.

If an herb tea mixture is composed mostly of roots and barks the tea may be boiled for 1 or 2 minutes so as to extract

all of the medicinal value. But if composed mostly of herbs and leaves and flowers the tea should not be boiled as boiling would evaporate the aromatic principles of the tea.

If an herb tea is to be taken for a long time it is best to take it alternately for three days; omit for three days and continue again for three days and so on until desired results are obtained.





LEGENDS, AND THEIR USES

Herbs of All Kinds

We have over 1,000 different varieties of herbs, roots, barks, seeds, leaves and flowers in stock and can supply any herb grown in any part of the world at 25c per box. Space does not permit printing a complete list. If you do not see what you

want send for it any way. We have it or can get it for you. Write for free catalog.

Requests for free samples will not be answered as we have no free samples. No orders for less than 25c accepted.

Postage Extra

On dry roots and herbs, plain or mixed, include 5c for each \$1.00 worth ordered.

On liquids, creams and ointments, send 10c extra for each \$1.00 worth ordered.

On orders for less than \$1.00 for goods of any kind include 5c extra for postage.

On C. O. D. orders amounting to \$1.00, send 50c cash with order. On orders of more than \$1.00, send 50c cash for first dollar, and 10c cash for each additional dollar of order. On

orders of less than \$1.00, send cash with order.

Make money order payable to Joseph E. Meyer. Send P. O. Money Order whenever possible. Stamps accepted for small amounts. We are not responsible for money sent in open mail.

Write for our free Catalog "The Natural Way to Health." This book contains a complete price list of all of our Roots and Herbs and numerous other things.

All Formulae Guaranteed Harmless

These formulae have been contributed from various countries. Each one has been carefully tested and although we cannot attribute to them the oftentimes exaggerated curative properties claimed by some of our too ardent contributors, yet we can conscientiously

guarantee them to be harmless and of the purest and freshest ingredients obtainable and in no case to produce seriously dangerous or fatal results if taken by mistake or for an ailment for which they were not recommended.

WHY USE CHEMICAL DRUGS

when nature in her wisdom and beneficence has provided, in her great vegetable laboratories—the fields and forest—relief for many of the ills of man?



LIST OF MEDICINAL PLANTS ILLUSTRATED IN COLORS

Those marked ** are too powerful for self-medication, often poisonous.

* Very mild to inert.

Aarons Rod—Refrigerant and astringent.

Acacia Vera—Nutritive and demulcent.*

Adders Tongue—Emetic, emollient, antiscorbutic and nutritive.

Alder, European—Bitter and astringent.

Almond—Emollient, demulcent, pectoral and sweet.*

Aloe—Diuretic.

American Centaury—Bitters.

American Cowslip—Expectorant and pectoral.

American Hellebore—To be used only under the direction of a competent physician.**

American Senna—Cathartic.

Anise—Stimulant and carminative.

Archangel—Aromatic, stimulant, carminative, diaphoretic, expectorant and diuretic.

Arnica—For external use only in promoting the healing of wounds, bruises, etc.

Asarabacca—Leaves: errhine, emetic and cathartic; Roots: purgative, emetic and diuretic.**

Asparagus—Edible, diaphoretic, aperient and deobstruent.

Aspen, Quaking—Febrifuge, antiscorbutic and as a vermifuge by veterinaries.

Avens—Tonic and astringent.

Balm—Moderately diaphoretic.*

Barberry—Tonic and laxative.

Bearberry—Astringent and diuretic.

Bearsfoot—Powerful emetic and cathartic and a drastic purgative, vermifuge and anthelmintic.**

LEGENDS, AND THEIR USES

Bearswort—Carminative, aromatic and stomachic.

Beech Drops—Astringent.

Beggars Tick—Emmenagogue and expectorant.

Belladonna—Energetic narcotic, anodyne, antispasmodic, calmative and relaxant to be used only under the direction of a skilled physician.**

Bennett—Astringent and styptic.

Beth Root—Astringent.

Bilberry—The leaves are strongly astringent and somewhat bitter.

Bird Cherry—The bark yields oil like almond.

Birds Tongue—Febrifuge and diuretic.

Birthwort—Febrifuge and emetic, stimulant and acrid.

Bistort—Astringent, diuretic and alterative.

Bitter Root—Emetic, diaphoretic and laxative.

Bittersweet, False—Alterative, diuretic and herpatic.

Black Alder—Alterative and astringent.

Blackberry—Astringent.

Black Currant—Diuretic.

Black Haw—Stimulant diuretic.

Black Hellebore—Has diuretic properties but its use as a home remedy is not advised.**

Black Poplar—Resinous and vulnerary.

Blind Nettle—Styptic, and used as a vaginal douche.

Blood Root—Stimulant and expectorant.

Blue Beech—Bitter, antiperiodic and alterative.

Blue Cohosh—Emmenagogue, diaphoretic and anthelmintic.

Blue Flag—Alterative and cathartic.

Blue Vervain—Tonic and expectorant.

Boneset—Taken cold it is aperient and in a warm infusion is diaphoretic, and emetic.

Borage—Cordial, pectoral and aperient.

Boxwood—Cathartic, sudorific and alterative.

Brier Hips—Mild astringent, carminative and diuretic.

Brooklime—Antiscorbutic, diuretic, emmenagogue and febrifuge.

Broom—Purgative and stimulant diuretic.

Bryony—Pectoral. Powerful and poisonous in large doses.**

Buckbean—Bitter tonic, cathartic and improves the digestion.

Buckthorn—Purgative.

Buffalo Herb—Nutrient and tonic. Contains vitamines and organic minerals.*

Bugloss—Expectorant, diuretic, diaphoretic and emollient.

Burdock—Diuretic, alterative, aperient.

Butter and Eggs—Diuretic and cathartic.

Button Snake Root—Diuretic, diaphoretic and emmenagogue.

Canada Snake Root—Aromatic and errhine.

Carrot—Stimulant, diuretic and carminative.*

Cassia Fistula—Mildly cathartic.*

Castor Bean—Seeds are cathartic and yield castor oil.

Catnip—Mild aromatic and carminative.*
Celandine—Stimulant, alterative, diuretic, diaphoretic, purgative and vulnerary.
Chickweed—Cooling demulcent.*
Chicory—Used in sour stomach and where the stomach has been upset by any kind of food.*
Cleavers—Refrigerant and diuretic.
Club Moss—Diuretic.
Colchicum—Sedative, cathartic, diuretic and emetic but great care should be used in its employment. Serious results may follow an overdose.**
Columbine—Diuretic and diaphoretic.
Columbo—A mild bitters, free from astringency.*
Coltsfoot—Emollient, demulcent, slightly tonic. Serviceable in coughs associated with colds.*
Comfrey—Demulcent and slightly astringent.*
Coriander—Aromatic, pungent, carminative, cordial and stomachic.*
Cramp Bark—Antispasmodic.
Crawl Grass—Astringent and diuretic.*
Crowfoot—Too acrid for internal use. Externally it is a counter-irritant.**
Cubebs—Mildly stimulant, expectorant, stomachic and carminative.*
Curled Mint—Aromatic, stimulant, stomachic and carminative.*
Cyani—Cordial.**
Dandelion—Dried root is stomachic, slightly diuretic and aperient.*
Deadly Nightshade—Narcotic and sedative. Not recommended for home use.**
Dog Mercury—Emetic and purgative. A poison unsuited for home use.**
Dog Poison—A poison which is not recommended for home use.**
Dogwood—Astringent and slightly stimulant.
Dwarf Elder—Laxative and diuretic.
Dwarf Rosebay—Stimulant, diaphoretic and diuretic.
Elder—The berries are a valuable aperient and alterative.*
Elecampane—Gently stimulant.*
English Elm—Astringent, demulcent and diuretic.*
English Ivy—Leaves: Stimulant, vulnerary, exanthematous and insecticide. Berries: Emetic and cathartic.**
Erect Knot Grass—Mild astringent, vulnerary, styptic and febrifuge.*
European Centaury—Aromatic, bitters and febrifuge.
European Seneka—Stimulant, sialagogue, expectorant, diaphoretic, diuretic and emmenagogue.**
European Spindle Bush—Tonic, laxative, alterative, diuretic and expectorant.*
European Water Hemlock—Too powerful and dangerous for domestic use.**
European White Beech—Astringent and stimulant.
Evening Primrose—Has been used for coughs resulting from colds.*
False Hellebore—Narcotic, caustic and vesicant.**

False Pimpernel—Diuretic, astringent and antispasmodic.
Fennel—Aromatic, carminative, pectoral, diuretic and stomachic.*
Fenugreek—Nutritive. A tea of the seed is useful for a gargle.*
Fig Tree—Laxative and demulcent.*
Figwort—Externally it is descatuent and internally an alterative.
Five Finger Grass—Excellent as a mouth wash and gargle.*
Flax—The seed is demulcent and emollient.*
Foxglove—Too dangerous for domestic use or self-medication.**
Fumitory—Gentle tonic and alterative and in large doses laxative and diuretic properties.*
Garden Burnet—Astringent.
Garden Spurge—Root: Cathartic. Seed: Cathartic and emmenagogue.**
Gentian, Blue—Bitter, stomachic, emetic and anthelmintic.
Gentian, Lutea—Tonic. Improves the appetite and promotes digestion.*
German Chamomile—Carminative, and valuable as a poultice.*
German Cheesepplant—Demulcent and emollient.*
Germander—Stimulant, aromatic and bitters.
Globe Flower—Diaphoretic and bitters.*
Goats Rue—Cathartic.
Golden Seal—Exerting an influence upon the mucous surfaces and tissues.*
Gold Thread—A pure and bitter tonic. Efficacious as a wash or gargle.*
Great Yellow Wolfsbane—A narcotic and a poison.**
Green Hellebore—Should be used only under the directions of a physician.**
Ground Ivy—Stimulant and pectoral.
Gumweed—Stimulating expectorant.
Hardhack—Astringent and tonic.
Hedge Hyssop—Acrid, drastic, vermifuge, diuretic.**
Hemlock—A powerful astringent.**
Hen and Chickens—Root: Antiscorbutic. Leaves: Vulnerary.
Henbane—Narcotic. Dangerously poison if improperly used.**
Herb Christopher—Vulnerary and astringent.
Hoarhound—Stimulant, expectorant and diuretic.*
Hollyhock—Emollient, demulcent and diuretic.*
Holy Herb—An excellent expectorant.*
Hops—Febrifuge, sedative and anthelmintic.
Horsebane—Narcotic, alterative. Supposed to be poisonous.**
Horse Radish—Useful in stimulating the stomach and promoting secretion such as the urine.
Horsetail Grass—Diuretic.*
Hounds Tongue—Demulcent and sedative.*
House Leek—Refrigerant and astringent.*
Hyssop—Stimulant, aromatic, carminative.*
Iceland Moss—Demulcent, tonic and nutritious.*
Imperial Masterwort—Aromatic, stimulant, cordial and diaphoretic.
Indian Arroweed—Used as a wash for mangy dogs.**

- Indian Hemp**—Narcotic, anodyne and antispasmodic. Use this only under the supervision of an experienced physician.**
- Indian Physic**—Diuretic, diaphoretic, expectorant, tonic and cathartic.
- Indian Turnip**—Acrid, expectorant and diaphoretic.
- Ironweed**—Bitters.
- Juniper**—Gently stimulant and diuretic.*
- Kalmia**—Should be used with prudence and restricted to external application as an ointment for skin irritations.**
- Kansas Sunflower**—Used to promote perspiration.*
- Kuemmel**—Seeds are carminative and stomachic.*
- Labrador Tea**—Pectoral and stimulant. Sometimes used as table tea.*
- Lady Slipper**—Diaphoretic, gentle nervous stimulant.
- Lady's Mantel**—Astringent.
- Lanceleaf Plantain**—Mild astringent.*
- Larch**—Laxative, diuretic and alterative.
- Larkspur**—Used to kill domestic vermin. Not to be used internally unless directed by a competent physician.**
- Laurel Bay**—Aromatic, stomachic, astringent and carminative.*
- Lavender**—Aromatic stimulant and tonic but seldom given in its crude state. Often used in perfumery and as a sachet.
- Lemon**—Acidulous, refrigerant and antiscorbutic.*
- Leverwood**—Alterative.
- Licorice**—Demulcent, expectorant and laxative.*
- Life Everlasting**—Astringent. Used in irritation of the mouth and throat.*
- Lily of the Valley**—Mucilaginous and sweet.
- Lily Root**—Astringent and demulcent.
- Linden**—Stomachic and useful in promoting perspiration.*
- Lobelia**—Too dangerous for internal use by the unskilled but may be applied externally as an ointment.**
- Loosestrife**—Mucilaginous, astringent and demulcent.*
- Lovage**—Stimulant, carminative, emmenagogue, stomachic and aromatic.*
- Lungwort**—Demulcent and mucilaginous.*
- Magnolia**—Aromatic, bitter tonic with diaphoretic properties.
- Malefern**—Used for the expulsion of worms, especially tapeworm.*
- Manna Tree**—Manna is laxative.*
- Marshmallow**—Emollient, demulcent, pain-soothing and lubricating.**
- Marygold**—Aromatic. Dried flowers boiled in lard make an excellent salve.
- Master of the Woods**—A fragrant, exhilarating tea and an aid to digestion.*
- Mayapple**—Cathartic, emetic, alterative, anthelmintic, hydragogue and sialagogue.**
- Meadow Fern**—Stimulant, alterative and vulnerary.**
- Mezereon**—Acrid, stimulant, alterative, diuretic and cathartic.
- Mistletoe**—Stimulant when properly used.**

- Monkshood**—Valuable in the hands of an intelligent physician but should not be employed in domestic practice.**
- Mother of Thyme**—Carminative and antispasmodic.*
- Motherwort**—Aromatic and bitter. Used as a vaginal douche.
- Moth Herb**—Bitter, astringent and vulnerary.
- Mountain Ash**—Astringent and antiscorbutic.
- Mountain Holly**—Astringent, emetic and febrifuge.
- Mountain Mint**—Aromatic, pungent, stimulant and emmenagogue.
- Mouse Ear**—Diuretic, sudorific and mucilaginous.*
- Mulberry**—Vermifuge and cathartic.
- Mullein**—Demulcent, diuretic and antispasmodic.*
- Nettle**—Astringent and diuretic.
- Nightshade**—An energetic narcotic poison, not to be employed in self-medication.**
- Nutmeg**—Stimulant and aromatic.*
- Nux Vomica**—It is very valuable for many indications but should be employed only by the educated physician.**
- Oak**—Very astringent.
- Pansy**—Pectoral, mucilaginous and laxative.
- Passion Flower**—Diuretic.**
- Peach Tree**—Sedative, bitter, aromatic and laxative.**
- Peppermint**—An aromatic stimulant with carminative properties.
- Persimmon**—Astringent, febrifuge and antiperiodic.
- Pest Root**—Vermifuge and poison.**
- Petty Spurge**—Cathartic and diuretic.**
- Pilewort**—Astringent.*
- Pimpernel**—Stomachic, diuretic and diaphoretic.
- Pink Root**—An active vermifuge in cases of round worm but should not be used alone.**
- Pitcher Plant**—A bitters with beneficial action on the stomach.
- Plantain**—Mildly astringent.*
- Pleurisy Root**—Used to promote perspiration and expectoration.*
- Poison Hemlock**—A virulent poison suitable for use only by the skilled physician.**
- Poison Ivy**—Not used in medicine.**
- Poison Lettuce**—Narcotic and poisonous.**
- Pokeberry**—Cathartic, alterative and slightly narcotic.
- Polypody**—Pectoral, demulcent, purgative and anthelmintic.
- Primrose**—The flowers are useful in ordinary headache. The whole plant has a soothing, quieting influence.*
- Princess Pine**—Diuretic.*
- Privet**—Astringent. May be used as a mouth wash and gargle.
- Quassia**—A well known bitters.
- Red Bryonia**—Acrid, bitter, emetic and cathartic.**
- Red Clover**—Alterative and antispasmodic.*
- Red Currant**—Refrigerant and febrifuge.*
- Red Eyebright**—Slightly tonic and astringent.

- Red Raspberry**—Astringent.*
Rest Harrow—Diuretic and aperient.
Rhubarb—Cathartic, astringent and tonic.
Rocky Mountain Grape—Alterative, diuretic and laxative.
Rosemary—Gently stimulant.*
Rue—A bitter, aromatic stimulant.
Saffron—Employed because of its soothing qualities.**
Sage—Feebly tonic with a beneficial effect on digestion.*
Saint Benedict's Thistle—Diaphoretic and bitters.*
Saint Johnswort—An astringent with soothing effects.*
Sanicle—Useful in throat irritations.**
Scammony—Cathartic, diuretic and herpatic.**
Scullecap—Nervine and tonic.**
Shag Bark Hickory—Cathartic.*
Sheep Sorrel—Refrigerant and diuretic.*
Silverweed—Astringent.
Skunk Cabbage—Stimulant, expectorant, antispasmodic and slightly narcotic.**
Slippery Elm—Demulcent and emollient.*
Soapwort—Used as a substitute for soap in shampoo compounds.**
Solanum Dulcamara—For relief of skin irritations.**
Solomon's Seal—Mucilaginous and astringent. Also said to be emetic.*
Spanish Iris—Used mostly as sachet for its violet-like odor.**
Spearmint—Carminative, antispasmodic, stimulant, aromatic and diuretic.*
Spicebush—Aromatic, vermifuge and febrifuge.
Squaw Vine—Diuretic and tonic.*
Squills—Resembles digitalis in action but should be used only by a competent physician.**
Sticklewort—Mild astringent. Useful in coughs resulting from colds.*
Sumach—Berries are astringent.* Great care must be taken in the selection of several species of *Rhus*, as many of them are highly poisonous.
Sweet Birch—The bark is aromatic and the leaves stimulant diuretic.*
Sweet Flag—Mild aromatic, employed for upset stomach.*
Sweet Gum—Used for coughs resulting from colds.*
Sycamore—Astringent.
Tansy—Emmenagogue, aromatic, vulnerary.
Thyme—Used in throat and bronchial irritation and to promote perspiration.*
Tilia—Cephalic and stimulant.*
Trailing Arbutus—Diuretic.
Tulip Tree—Bitter, aromatic, stimulant, febrifuge and vermifuge.*
Turtlebloom—Tonic and aperient.*
Valerian—Stimulating tonic, antispasmodic and calmative.**
Veronica—Alterative, diuretic, expectorant, diaphoretic.*
Violet—Alterative and expectorant.*
Walnut, Black—Astringent.*





LEGENDS, AND THEIR USES

Walnut, White—Mild cathartic.*

Water Cress—This plant is said to be rich in minerals.*

Water Pimpernel—Stomachic, diuretic and diaphoretic.

White Pine—Expectorant.*

White Poplar—The bark possesses balsamic and soothing qualities.*

Wild Alum—Strongly astringent.

Wild Bergamot—Aromatic, bitters and stomachic.*

Wild Cherry—Has the stomachic action of simple bitters and is of value in cough syrups.*

Wild Jalap—A strong cathartic, overdoses of which are to be avoided.**

Wild Marjoram—Aromatic, pungent, stimulant and emmenagogue.

Wild Plum—Bark: Antispasmodic and sedative. Berries: Acidulous and astringent.*

Wild Strawberry—Astringent and tonic.*

Willow—Bitter, astringent and antiperiodic.*

Winterberry—Bitters, alterative, febrifuge and astringent.*

Wintergreen—Diuretic and used in small doses to stimulate the stomach.*

Witch Grass—Diuretic, aperient and demulcent.*

Witch Hazel—Astringent, advantageously used as a mouth wash for irritation.*

Wood Betony—Aperient and cordial.*

Wood Sorrel—Cooling and diuretic.*

Wormwood—Anthelmintic, tonic and narcotic.

Woundwort—Pungent and bitter and slightly diuretic.

Yarrow—This plant belongs to the aromatic class of sudorific tonics.*

Yellow Chestnut—Astringent and febrifuge.

Yellow Dock—Alterative, tonic and astringent.*

Yellow Goldenrod—Carminative and diaphoretic.

No. 136—Box, 25c.

Golden Seal Nasal Powder—This powder is snuffed up into the nostrils. It cools and soothes the irritated membranes. The most active ingredients are: Eucalyptus, Camphor, Golden Seal. Free from all habit-forming drugs.

Use as a snuff six to ten times daily. May also be used as a lotion or spraying fluid by steeping $\frac{1}{2}$ teaspoonful of this mixture in a cup of warm water.

No. 310—Box, 50c.

Cubeb Nasal Smoke—The herbs comprising this formula contain certain soothing agents which are vaporized when smoked, and when inhaled reach all accessible mucous membranes of the channels of the head, nose, and throat.

Directions—Smoke a pipeful of these mixed herbs upon retiring at night, discharging the smoke through the nose.

No. 61—50c per jar.

Juniperole—This is a preparation of Juniper and other Vegetable Oils that we can recommend in cases of coughs, where an expectorant is indicated. It is a handy household remedy that should be in every home. We have never heard of or seen a better remedy for raising phlegm.

No. 2—Box, 50c.

Golden Seal Salve—A mild and cooling, yet remarkably effective salve. It is especially valuable for irritations of mucous surfaces, such as the nostril, mouth, piles, burns, scratches, chapped hands, congestion of the nose and throat, wherever a mild, soothing salve is indicated.

PLAIN ROOTS, HERBS, LEAVES, BARKS, FLOWERS AND SEEDS

Address All Orders to Indiana Botanic Gardens, P. O. Box 5, Hammond, Ind.

We can furnish any herb, root or bark grown at 25c per box. These botanicals are cleaned, cured and nicely cut into small pieces ready to be used in formulae or to be used as a tea. Many of the botanicals give better results when ground up finer than the above—but as the granulated or ground roots and herbs, etc., do not look as clean and nice as the cut we always send these articles cut into small pieces.



We sell no poisonous or habit-forming drugs. You are therefore always safe in ordering our herb teas. If they do not benefit they at least are harmless. These teas are easy to make—just place a heaping teaspoonful of any of the herbs in a cup of boiling hot water. When cool strain and drink one or two cupfuls a day; a large mouthful at a time.

A

Agar Agar
Alum Root
American Colombo
All Heal
Althea
Amaranth
Anise Seed
Angelica Root
Arnica Flowers
Arberry
Avensroot
Adam and Eve Root
Asperula
Acorns, Sweet
Ailanthus
Alkanet
Allspice
Aloes
Ava Kava
Acacia
Agrimony
Asafoetida

Amber Gum
Arabia Gum
Aletris
Alisma Plantago
American Century
American Dittany
Angostura
Anise, Star
Anise, German
Alpine Root
Apple Tree Bark
Arbor Vitae
Arbutus, Trailing
Avena Sativa
Areca Nuts
Arrow Root
Alfalfa
American Ivy
Amole Root
Angelica Seed
Archangel
Arum
Arnica Root
Asparagus Root

LEGENDS, AND THEIR USES

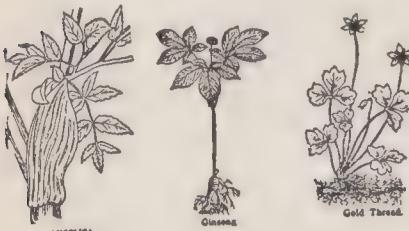
Asparagus Seed	Black Haw
Ash, White	Blessed Thistle
Aya Pana	Blue Skulleap
Aaron Root	Blue Gentian
Abscess Root	Blue Flag
Absinthium	Blue Vervain
Adder's Tongue	Blue Cohosh
Agarie of Oak	Bloodroot
Agave	Bogbean Leaves
Ague Root	Boldo Leaves
Alder, Tag	Button Bush
Alder, Black	Bohea
Ale Hoof	Bourbon Bark
American Senna	Boxwood Leaves
	Bramble
	Brimstone
	Buckbean
	Buckhorn Brake
	Buffalo Herb
	Bugle, Sweet
	Burgundy Pitch
	Beech Leaves
	Black Oak
	Black Sampson
	Bladderwort
	Blazing Star
	Boneset
	Borage
	Boxwood Bark
	Broom Tops
	Buchu
	Bull Nettle
	Butterfly Weed
	Butisfly Weed
	Button Snake
	Buckthorn Bark
	Buckthorn Berries
	Butternut Bark
	Benzooin Gum
	Bistort
	Bugleweed
	Burdock Root
	Burdock Seed
	Bamboo Briar
	Briar Hips
	Basswood Flowers
	Buckeye

B

Balm
Bm. of Gilead Buds
Balsam
Balmony
Bayberry
Bearsfoot
Beth Root
Benjamin Bush
Benne Leaves
Bearberry
Billberry Leaves
Birch Bark
Bittersweet Twigs
Bitter Root
Black Alder Bark
Black Snake Root
Bladder Wrack
Black Cohosh
Blackberry Root
Black Butternut
Black Root
Blue Eye Flowers



Basil
Beech Drops
Bergamot
Betelnut
Betony
Black Walnut
Black Pepper
Bouncing Bet
Bryony
Black Willow
Broom Corn Seed
Baptisia
Barberry Bark
Bay Leaves
Bedstraw
Bee Balm
Beggars Tick
Bitter Almond
Belfast Gum
Butter and Eggs
Buttercup
Black Cherry Stems
Black Indian Hemp
Blue Bottles
Blue Malva
Blue Violets
Bluets

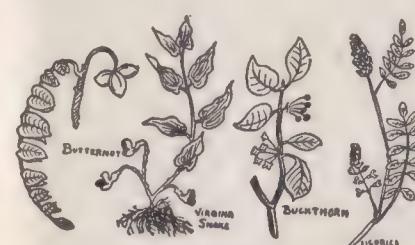


C

Calamus
Calendula
Canada Snake Root
Catnip
Calabar Bean
Calamint
Calisaya Bark
Chestnut Leaves
Caraway

Cascara
Celery Seed
Celandine
Centaurea
Cheese Plant
Columbo
Cotton Root
Coriander Seed
Colic Root
Consumption Moss
Corn Silk
Comfrey Root
Cudbear (Red)
Culver's Root
Curled Yellow Dock
Couch Grass
Cough Wort
Cranesbill
Cramp Bark
Crawley
Crow Corn
Crimson Clover
Cubeb Berries
Condurango
Canella Bark
Capsicum
Cardamon Seed
Casearilla Bark
Cassia Bark
Cocillana Bark
Coolwort
Cowslip
Crawl Grass
Crowfoot
Currant Leaves
Cyani Flowers
Corsica Moss
Chickweed
Chiretta
Chicory
Chocolate Root
Cinchona Bark
Cinnamon Bark
Cleavers
Cloves
Coltsfoot
Catechu

Charcoal
Cohosh, Black
Cohosh, Blue
Cumin Seed
Coculus Indicus
Coto Bark
Carrot Seed
Cassia Buds
Cassia Fistula
Catmint
Cedar Leaves
Chenopodium
China Root
Chondrus Crispus
Cimicifuga
Club Moss
Clover, White



Clover, Red
Cinquefoil
Cowage
Cammock
Cancer Root
Carrot, Wild
Cedron Seed
Chamomile, Roman
Chamomile, German
Cherry Bark, Wild
Clover, Sweet

D

Damiana
Dandelion Root
Devil's Shoe String
Devil's Bit
Dog Grass
Dwarf Elder Bark
Daisy, White

Deer Berry
Danewort Leaves
Dewberry
Dita Bark
Dock, Narrow
Dock, Yellow
Dulse
Dropwort
Deer's Tongue
Dill Seed
Dittany
Dogwood
Dogsbane
Dragons Blood

E

Echinacea Root
Elder Flowers
Elm Bark
Elecampagne
Evening Primrose
Eyebright
Elder Berries
Eve's Cup
East India Root
Egyptian Manna
El Gobernadora
Emetic Herb
European Centaury
European John
Elder Bark
Elm, Slippery
Erigeron
Eryngo
Eupatorium
Euphorbia
Euca Leaves
Eucalyptus Leaves
Evans Root
Everlasting

F

Foso Bark
Feverfew
Figwort Herb
Five Finger Grass

Fever Twig
Frostwort
Fenugreek
Fireweed
Flax Seed
Fennel Seed
Fishberries
Fleabane Herb
False Bitter Sweet
Female Regulator
Fern, Male
Fern, Sweet
Fever Bush
Fever Wood
Feather Few
Fever Weed
Fragrant Valerian
False Unicorn
Female Fern
Fever Root
Fever Wort
Flag, Blue
Flag, Sweet
Flake, Manna
Fumaria
Fumitory
Flea Seed
Field Balsam
Field Balm
Fir Balsam
Fleur de Lis
Flux Weed
Frankincense
Fringe Tree

G

German Chamomile
Galangal
Gentian
German Rue
Grains of Paradise
Grindelia Robusta
Gr'nd Pine Leaves
Grape, Rocky Mountain
Galbanum
Ginseng
Germander

Garlic
Goose Grass
Gold Thread
Golden Seal
Gulf Wrack
German Cheese Plant
Galega
Goats Rue
Gossypium
Gravel Root
Ground Ivy
Guarana
Guinea Pepper
Gum Arabic
Grass, Dog
Grass, Couch
Grass, Bear
Grass, Knot
Grass, Grip
Grass, Pepper
Grass, Scurvy
Grass, Star
Grass, Witch
Gravel Weed
Greasewood Plant
Great Stinging Nettle
Greek Valerian
Green Ozier
Green Tea
Golden Rod
G. L. Herbs
Goosefoot, Stinking
Grains, Ambrette
Grape, Oregon
Gelsemium
Genista
Geranium Mac.
Geum
Ginger
Gillenia
Glycyrrhiza
Gum Acacia
Gum Tragacanth
Gum Myrrh
Gum Olibanum
Gum Galbanum
Gall of Earth

Gambir Gum
Garden Celandine
Gravel Plant
Groundsel
Guaiac Gum
Guaiac Wood
Gum Bark, Sweet
Gum Plant
Gum Camphor
Gamboge
Garden Rue
Garden Sage
Gay Feather
Giant Ragweed
Gill-go-over-the-ground
Ginger, Africian
Ginger, Jamaica
Globe Flower
Gobernadora
Gold Root
Golden Locks



HOPS: A branch with small, round, hop cones and large, serrated leaves. The word 'HOPS' is written below it.

COLOMBO: A plant with long, narrow, lanceolate leaves and small flowers in whorls along the stem. The word 'COLOMBO' is written below it.

JUNIPER: A plant with long, thin, needle-like leaves and small, scale-like flowers. The word 'JUNIPER' is written below it.

H

Hardhack
Hawthorn Berries
Hemlock Bark
Henbit
Henna Leaves
Hickory Bark
Hoarhound
Hops
Horse Tail Herb
Horsechestnut Fruit
Hound's Tongue Herb
Huckleberries
Hydrangea
Haircap Moss
Heal All
Hedeoma

I

Indian Balsam
Indian Balm
Indian Hyssop
Indian Elder Root
Indian Sloe
Indian Elm
Indian Ginger
Indian Deer Berry
Indian Sage
Iron Wood
Iron Weed
Iceland Moss
Ilex
Indian Poke
Indian Turnip
Indian Red

Indian Yellow
Indian Sarsaparilla
Indian Physic
Inula
Irish Moss
Ipecacuanha
Iris
Insect Powder
Indian Cup Plant
Indian Gum
Indian Tobacco
Indigo, Wild



J

Jerusalem Oak
Johnny Conqueror
Juniper Berries
Jamaica Berries
Jalap
Jamaica Ginger
Jesuits Bark
Jezabel Root
Jamaica Dogwood
Jessamine
Jewelweed
Juglans
Jaborandi
Jambul Bark
Jambul Seed
Job's Tears
Jequirity
Jack-in-the-Pulpit
Jacob's Ladder
Jamaica Sarsaparilla
Java Pepper
Jersey Tea
Jews Harp
Joe Pye Weed

K
Kidney Root
Kidney-Liver Leaf
Kola Nuts
Knot Grass
Kidney Wort
Kava Kava
Kino Gum
Karaya Gum
Kamala
Kansas Sun Flower
Kelp
Kousso
Kuemmel
Kinnikinnick
King's Clover

L

Lady Slipper
Lavender Flowers
Lemon Balm
Lily Root
Lily-of-the-Valley
Liferoot
Licorice Root
Life Everlasting
Lobelia Herb
Lovage
Liquorice
Liverwort
Logwood
Lycopodium
Ladies' Finger
Lambs Quarters
Larch
Large Flowered Spurge
Leatherwood
Lungwort
Labrador Tea
Lactuca
Lettuce, Wild
Lappa
Larkspur
Laurel
Leek
Leptandra

Liatris Scariosa
Life Root Plant
Linseed
Linum
Leaverwood
Lemon Thyme
Lesser Periwinkle
Leverwood
Lignum Vitae
Linden Flowers
Liverleaf
Locust Bean
Lousewort
Lucerne
Lung Moss
Lung of the Oaks
Lungwort Moss



M

Magnolia Bark
Maiden Hair Fern
Male Fern Root
Mallow Flowers
Mallow Root
Mandrake
Marsh Mallow
Man Root
Motherwort
Mullein Leaves
Mugwort Herb
Mace
Madder
Maize
Manna
Marjoram
Marrubium
Masterwort
Matieo

N

Nasturtium
Nettle Leaves
Nerve Root
Nard
Navelwort
New Jersey Tea
Nepeta
Nutmeg
Nymphaea

Matricaria
Meadow Sweet
Melissa
Melilot
Marigold
"Master of the Woods"
May Apple Root

Milfoil
Milkwort
Mistletoe
Mint Blossoms
Menispernum
Mezereon
Milkweed
Monarda

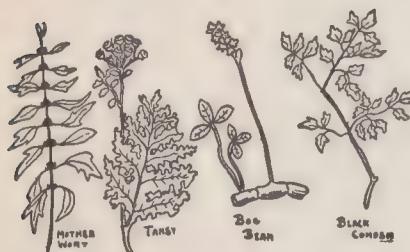
Mountain Tea
Musk Root
Mustard Seed
Myrrh, Gum
Myrtle
Manaca
Manzanita
Mouse Ear
Mastic Gum
Muira-Puana
Mad Dog Weed
Ma Huang

Mallow Leaves
Malva Flowers, Blue
Malva Flowers, Black
Maple Bark
Mexican Damiana
Mexican Maté
Mountain Ash Bark
Mullein Flowers
Mexican Sage Leaves

Narrow Dock
Neroli Flowers
Nettle, Stinging
Nettletwort
Niggerhead
Ninsin
Nip
Noah's Ark
Noble Liverwort
Nosebleed Herb
Nut, Areca
Nut, Bethel
Nut, Kola
Nut Galls

O

Oregon Grape
Orris Root
Oak Bark
Oswego Tea



Okra
Olibanum Gum
Oak, Agaric of
Oak, Black
Oak, Black Jack
Oak, Jerusalem
Oak, Red
Oak, White
Oil Nut Bark
Oldfield Balsam
Oldman
Oldman's Beard
One Berry
Onion, Sea
Orache
Orange Flowers
Orange Root

Oriental Gum
Origanum
Oxalis
Oxbalm
Oxeye Daisy
Ozier, Green

P

Pale Cohosh
Papoose Root
Parsley Root
Persimmon Bark
Periwinkle
Penny Royal
Peppermint
Pichi Tops
Pig Weed
Pilewort
Pimpernel
Pimpinella Root
Pink Root
Pipsissewa
Prickley Ash Berries
Pareira Brava
Parilla
Pepper, Black
Pepper, White
Pepper, Red
Pine Bark, White
Pond Lily
Princess Pine
Parsnip
Partridge Berry
Peach Leaves
Pitcher Plant Herb
Palmetto Berries
Paraguay Tea
Parsley Herb
Parsley Piert
Passion Flower Herb
Pellitory Root
Pellitory of the Wall
Pennycwort, American
Pennycwort, Asiatic
Pleurisy Root
Poke Root

LEGENDS, AND THEIR USES

Pomegranate Bark
Poplar Root Bark
Prairie Pine
Prairie Grass
Prairie Plant
Prairie Mint
Prickly Ash Bark
Primrose
Pine Leaves
Poke Berries
Poppy Seed
Pumpkin Seed
Pennycwort
Peruvian Bark
Pimento
Plantain
Polygala
Prairie Dock
Puccoon, Yellow
Puccoon, Red
Pansy Herb
Patchouly Leaves
Peony
Polypody
Pepper Grass
Pine Needles
Poppy Flowers, Red
Pride Weed
Privet
Psylla Seed
Psyllium Seed
Purging Buckthorn
Pyrola

Q

Queen's Root
Quince Seed
Queen of the Meadow
Queens Delight
Quassia
Quebracho
Quinine Bark
Quillaya
Quack Grass
Queen Elizabeth Root
Quick Grass

R

Ragweed Herb
Rattlesnake Master
Red Clover
Red Oak Bark
Rhubarb
Ribwort
Rock Rose
Roman Motherwort
Rose Pink
Rose Buds
Rheumatism Root
Rheum
Richweed
Rosemary
Rosinweed
Rhatany
Ragwort



Raspberry Leaves
Red Root
Red Pepper
Red Saunders
Rumex
Rhus Aromatica
Rest Harrow
Rose Hips
Raccoon Berry Root
Radish, Horse
Ragged Cup
Rape Seed
Rattlebush
Rattle Root
Rattlesnake, Violet
Rattlesnake Weed
Red Alder
Red Berry
Red Elm
Red River Snake Root

Red Sandalwood
Red Shank
Red Top Sorrel
Red Squills
Resin
Rheumatism Weed
Robin-run-away
Robin-run-in-the-Hedge
Robins Eye
Robins Rye
Rock Brake
Rock Polypod
Rocky Mountain Grape
Roman Chamomile
Round Leaved Pyrola
Royal Flowering Fern
Rue, Garden
Rue, Goat's
Ruler of the World
Rum Cherry
Rupturewort
Rush, Scouring

S

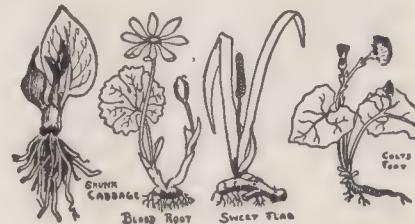
Sweet Weed
Sassafras Bark
Sea Wrack
Shepherd's Purse
Solomon's Seal
Stone Root
Sage Leaves
Squaw Vine
Seven Barks
Silver Mullein
Shavegrass
Skunk Cabbage
Swamp Cabbage
Self Heal Herb
Seneka Snake
Sweet Bugle Weed
Sweet Balm
Saffron
Simaruba
Salep
Sambucus
Sandarach
Sanguinaria

Sanicle
Saponaria
Sarracenia
Succory
Swamp Hellebore
Silverweed
Sumach Bark
Sumach Berries
Sweet Basil
Strawberry Leaves
Speedwell
Sorrel
Spikenard
Squaw Bush
Sweet Gum Bark
Star Root
Snakehead
Spearmint
Squaw Weed
St. Johnswort
Sweet Fern
Sacred Bark
Sampson Root
Sandal Wood
Southern Wood
Sourwood
Spicewood
Spigelia
Spirea
Spleenwort
Squill
Star Anise
Sumbul
Sunflower Seed
Saw Palmetto Berries
Spruce Gum
Spurge
Stagbush
Steeplebush
Sticklewort
Stinging Nettle
St. Johnsbread
St. Josephwort
Sumach Leaves
Summer Savory
Sundew
Swamp Beggars Tick

Sweet Wood
Sweet Woodruff
Sampson Snake Root
Savin
Seabiosa
Scammony
Scilla
Seulceap
Scurvy Grass
Scutellaria
Senna, Alex
Senna, Tin.
Septfoil
Star Grass
Stavesacre
Stillingia
Serpentaria
Slippery Elm
Smartweed

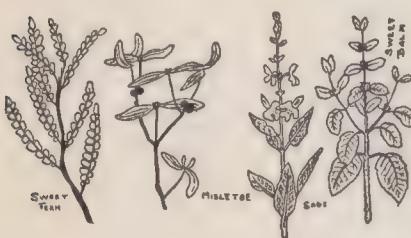
T

Tamarack Bark
Toad Flax Herb
Tag Alder
Trailing Arbutus
Thimble Weed
Tall Nasturtium
Tall Speedwell
Tall Veronica
Tanners Bark
Tar Weed
Thoroughwort
Tetter Wort
Turtle Bloom
Thyme
Tormentil
Thousand Seal
Twin Leaf
Tacamahac
Tamarinds
Tansy
Taraxicum
Teaberry
Thus Gum
Tinnevelly Senna
Tonka Beans
Touch-me-not
Tragacanth Gum
Trillium
Triticum
Turmeric
Tarragon
Tulip Tree
Turkey Corn
Tilia Flowers
Tilia Leaves



Snake Root, Black
Snake Root, Button
Snake Root, Can.
Snake Root, Va.
Snake Root, White
Soap Bark
Solanum
Swallow Wort
Swamp Mallow
Swamp Sassafras
Swamp Sumach
Sweet Bay
Sweet Birch
Sweet Flag
Sweet Marjoram
Scouring Rush
Sarsaparilla, American
Sarsaparilla, Honduras

Turpeth Root
Taronzil
Tailed Pepper
Texas Snake Root
Thistle, Blessed
Thistle, Canada
Thistle, Common
Thistle, St. Benedict
Thorn, Black (Blossoms)
Throat Root
Throw Wort
Thuja
Tick, Swamp Beggars
Tickweed
Tobacco, Indian
Toothache Bush
Toothache Herb
Travelers Joy
Tree of Heaven
Trefoil
True Love
Trumpet Weed
Tumeric
Turkey Pea



Turkey Rhubarb
Turk Root
Turnip, Indian
Turtle Head
Twitch Grass
Timothy Seed

U

Unicorn Root
Uva Ursi
Ulmus
Urtica
Umbel
Uncum

Upland Cranberry
Uvedalia

V
Valerian
Verbain
Veronica
Virginia Snake Root
Vanilla Beans
Verbena
Viburnum
Violet Flowers
Violet Leaves
Vandal Root
Vanilla Pods
Vegetable Charcoal
Velvet Plant
Verbascum Flowers
Vermont Snake Root
Vine Leaves
Violet Root
Virginia Creeper
Virginia Stonecrop

W

Wahoo
Water Dock
Wallwort
Water Avens Root
Water Pepper Herb
Water Plantain
Waywort Root
Woodbine
Wood Sorrel
World's Wonder
Wood Sage
Worm Seed, American
Woundwort, Clowns
White Oak Bark
Wild Cherry Bark
Wild Strawberry
Wild Yam
Wild Clover
Wild Indigo
Wild Bergamot
Wild Cranberry
Wild Alum Root
Wild Ginger

Witch Hazel Bark
Woodruff
Wormwood
Worm Grass Root
Wafer Ash
Walnut Hulls
Walnut Leaves
Wild Plum
Wintergreen Leaves
Wake Robin
Water Eryngo
Watercress
Water Lily Root
Wild Lemon Root
Winters Bark
Wild Turnip
Wild Tobacco
Willow Charcoal
Willow, Black
Willow, Pussy
Willow, White



Willow Herb
Witch Grass
Wonder of the World
White Weed
Whitewort
Whortleberry
Wickopy
Wickup
Wild Carrot Leaves
Wild Celery
Wild Grape Root
Wild Lettuce
White Pine Bark
White Pine Needles
Wild Potato
Wild Sage
Wild Soapwort

Wild Thyme
Walewort
Wallflower Root
Wall Pellitory
Walnut Bark
Wandering Milkweed
White Ash
Western Dropwort
White Clover
White Daisy
White Holly Leaves
White Pond Lily
White Pepper
White Root
White Sandalwood
White Walnut
Wood Betony Herb
Watermelon Seeds
Wafer Ash

Y

Yarrow
Yellow Jessamine
Yellow Dock Root
Yellow Parilla
Yerba Reuma
Yerba Santa
Yohimhehe Bark
Yellow Gentian
Yellow Poplar
Yellow Root
Yellow Puccoon
Yerba Mansa
Yam, Wild
Yarrow Flowers
Yarrow Leaves
Yellow Bark
Yellow Bearsfoot
Yellow Cedar
Yellow Chiretta
Yellow Toadflax
Yellow Wood
Yohimbibi
Yerba Del Pasmo

Z

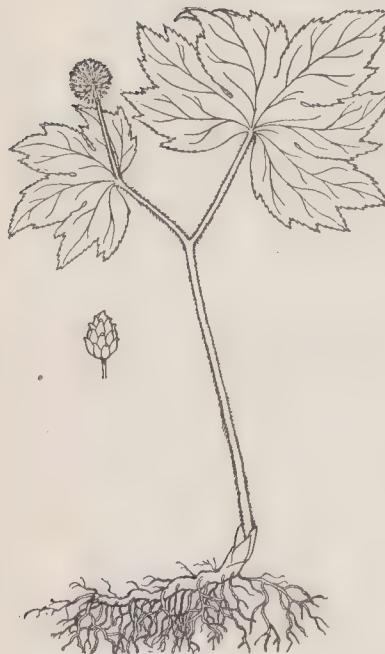
Zea Mays
Zedoary

GOLDENSEAL UNDER CULTIVATION

By WALTER VAN FLEET

Physiologist, Drug-Plant and Poisonous-Plant Investigations
U. S. Department of Agriculture

THE GOLDENSEAL PLANT



Goldenseal, known botanically as *Hydrastis canadensis*, is a perennial, with a short, yellow rootstock prominently marked with seal-like depressions caused by the falling away of the annual stems. A great many popular names have been given the plant in the past, but goldenseal and hydrastis are now most commonly used.

The stems of goldenseal grow to a foot or more in height and bear two (or rarely three) large, slightly hairy, five-parted leaves. The stems

are purplish and hairy above ground, but below the soil surface they are yellow, like the roots.

In early May, before the leaves are fully developed, a single, small, greenish white flower appears on a short branch, or rather on the continuation of the stem above the upper leaf. This flower develops into a berrylike fruiting head, bright red in color when fully ripe and much resembling a large raspberry. Each fruit may contain 10 to 30 black seeds, somewhat smaller than buckwheat grains. Several stems are commonly sent up by the stronger rootstocks, but as a rule only one flower head is developed. In old clumps, as well as on young and weak plants, there are many stems which bear a single leaf but no flower. The stems and leaves usually die down soon after the fruit ripens, but in moist seasons favorable to late growth they may persist until frost. Winter buds, generally two in number, form near the base of each stem. These buds perpetuate the growth next season, but as a rule only one bud starts in the spring, the others acting as a reserve in case of accident.





LEGENDS, AND THEIR USES

The fresh rootstock is rarely over 2 inches in length and is about three-fourths of an inch in thickness, giving forth at the sides a profusion of fibrous yellow roots a foot or more in length (fig. 1). It contains a considerable quantity of yellow juice, rather rank in odor, which the Indians used as a dye. When dried, the rootstock shrinks to about one-

fourth of an inch in diameter, becoming hard, knotty, and wrinkled. The dried rootlets are very brittle and break away from the rootstock unless carefully handled. This "fiber," as it is commercially termed, has equal medicinal value with the rootstock, but realizes only about half the price when separated from it.

Habitat and Range

Goldenseal is native to open woodlands where there is ample shade, good natural drainage, and an abundance of leaf mold. Its range is from southern New York and Ontario west to Minnesota and south

to Georgia and Kentucky, ascending to higher altitudes as its southern limits are approached. The most abundant centers of distribution are in Ohio, Indiana, West Virginia, and Kentucky.

Commercial History

Goldenseal was commonly used by the Indians and early settlers of eastern North America as a remedy for sore mouth and inflamed eyes, and also as a bitter tonic in stomach and liver troubles, but there was little commercial demand for the root until about 1860. Since that time its use has become world-wide, though by far the greater quantity of the crude drug, both wild and cultivated, is consumed in this country.

Until about the year 1880 the prices paid for crude goldenseal rarely ranged over 8 to 12 cents a pound, these prices,

as a matter of course, being based on the actual cost of collecting and curing the material in the localities where it most abounded. In 1890, however, the approaching scarcity of the root was manifested by rising prices, and at the close of the next decade the cost had advanced to an average of 58 cents a pound. Early in 1904 the price passed the dollar mark, the wholesale quotations varying from \$1.35 to \$1.50. In 1918 the price ranged from \$4.50 to \$6.00. In 1934 the price receded to \$1.00 to \$1.50.

With the exception of slightly retrograde fluctuations in

1912, which were apparently the direct result of overcollection, there has been a steady advance in the price of the dried root, both wild and cultivated. The prices paid to growers and collectors of goldenseal for the last three years before the depression have

Quantity of Root Consumed

Reliable statistics of goldenseal production are not available, but the best-informed drug traders estimate the quantity consumed at 200,000 to 300,000 pounds annually, about one-tenth of which is exported.

Preparation of the Soil

The soil in which goldenseal is grown should be well fertilized, and preferably by the use of decaying vegetable matter, such as woods soil and rotting forest leaves, which should be well worked in to a depth of 10 inches or more. Raw bone meal and cottonseed meal are favorable in their action and have also the great advantage of not introducing weed seeds. Both may be applied at the rate of half a pound to each square yard of bed surface, or something over 1 ton to the acre. The best means of supplying the indispensable element, potash, appears to be in the form of the sulphate, using 2 ounces to the square yard,

ranged from \$3 to \$4.25 a pound, and these prices are thought to afford a fair basis of profit in goldenseal culture, even after taking into consideration the rather exacting requirements of the plant and its relatively slow progress toward commercial maturity.

Quantity of Root Consumed

Because of its increased cost and probable competition with new remedies, goldenseal may not advance in favor as rapidly in the future as it has in the recent past, but it can be regarded as a natural drug of proved value quite sure to hold its own place.

Preparation of the Soil

or 600 pounds per acre. These fertilizers—leaf mold, bone meal, cottonseed meal, and sulphate of potash—when possible should be well mixed with the soil two weeks or more before setting the plants.

Thoroughly rotted stable manure applied in early spring as a mulch or incorporated into the soil before planting greatly stimulates growth, but sometimes it appears to favor the decay of the crowns and frequently introduces troublesome weeds. For these reasons it is little used by the more experienced growers.

If the soil is of close texture, leaf mold should be used with great liberality, a covering 4

inches deep, with an additional inch or two of sand, being not too much to incorporate when preparing the beds.

Plants may be set 6 to 8 inches apart each way, cover-

ing the rootstocks about 2 inches deep. Seedlings and root cuttings may be set 3 inches apart at first and afforded greater space when next transplanted.

Propagation

Goldenseal is propagated by means of seeds, by division of the rootstocks at the dormant period, and by buds or young plants formed from the stronger fibrous roots. Of the three methods, division of the rootstock is perhaps the one most frequently used, as two or more buds usually form near the scar left by the stem when the top decays after the summer's growth, and it is only necessary to cut apart the rootstock, taking care that a few good roots are secured with each bud or growing point. The portions of the rootstocks with the accompanying rootlets which do not pos-

sess buds, or "eyes," may be dried for market. It is the usual practice when digging beds of cultivated goldenseal or when handling the fresh wild root to use for replanting all buds that can be spared from the drying stock. From rootstocks of marketable age an increase of 200 to 300 per cent of propagating material may thus usually be had and a fair surplus of root left for drying. When used for purposes of propagation only, the beds may be dug over each year and the rootstocks divided, thus obtaining under favorable conditions an increase of about 100 per cent.

Root-Bud Propagation

The buds and plants which form on the stronger fibrous roots are very irregularly distributed and occur from 2 inches to a foot from the rootstock. Naturally they are most abundant on the roots of plants which have not been disturbed for several years and which in time form the matted growths that are found in undisturbed wild colonies and in old beds

under cultivation. These plants are usually quite small, but may be half an inch or more in height. The larger ones may be planted with the main crop, while the smaller ones are best set under shade, about 3 inches apart. They may be placed in boxes or in beds of prepared light soil with a good proportion of leaf mold, where they may be allowed to grow until

large enough to transplant to the regular beds. The plants should be dibbled in, with the growing point an inch or so below the surface. These buds are often quite obscure in

form, but practically any healthy thickening on a goldenseal root may be expected to produce a plant if given a fair chance.

Propagation by Seed

The earlier goldenseal growers did not greatly favor propagation by seeds, which are rather scarce in nature, owing to the dense growth of many of the wild stands and the frequent destruction of the ripening berries by birds and forest animals. Plantings in forest seed beds appeared to give poor results, owing to various disturbing causes, even when the seeds were in good condition. Under cultivation, however, seeds are freely produced, owing to the better spacing of the plants and their security from birds and animals; and, if properly handled, they should germinate with vigor the following spring, or earlier if sown under glass.

The berries or seed heads should be picked as soon as they begin to show color, and when a sufficient quantity has been obtained it is probably best to knead them in a bag so as not to crush the seeds, thus getting rid of the fermentable materials in the juice and pulp. The residue, consisting of the skins and seeds, may be mixed with ten times its bulk of sand or sifted woods soil and strati-

fied in well-drained pots or boxes. These should be covered with fine wire netting, to exclude vermin, and kept in a cool, moist cellar or buried in the soil in a shady place free from standing water. The soft parts soon rot away, leaving the seeds in their naturally moist condition, fresh, plump, and bright.

The seeds may be sown in October in a well-prepared seed bed containing a large proportion of sifted woods soil worked in to a depth of 6 inches. They may be scattered broadcast with the stratifying material or sifted out and dropped one-half inch apart in rows about 6 inches apart. The seeds should then be pressed into the moist soil with the flat side or edge of a board and covered with fine leaf mold to the depth of an inch. Burlap or old fertilizer sacks make a very good winter covering for the beds, keeping in the moisture and protecting the seeds from being washed out by the drip from boughs, or from laths if under artificial shade. A mulch of leaves or moss may be placed over the burlap dur-

ing very frosty weather to lessen the danger of heaving.

In the experiments of the Department of Agriculture there have been grown in a single 10-inch pot, in 10 months, as many as 50 vigorous seedlings, with from one to three buds to a single rootstock

Shade

When well established in favorable soil goldenseal will endure nearly full sunlight, but for satisfactory growth it requires about 75 per cent of shade in summer, though much less will answer in spring.

There are many methods of obtaining the necessary shade, the most common being to set posts of durable wood firmly in the ground 8 feet apart each way, rising to about 7 feet in height above the soil surface. Scantlings 2 by 4 inches in size are nailed on top of the posts, running the long way of the shed. The shade is usually

Digging and Curing

The roots may be dug at any time in autumn after the tops have died down. It is best to take up the beds solidly when of sufficient age, as the root buds and small plants are generally abundant enough to reset if it is thought desirable.

The rootstocks and attached rootlets are washed clean of all soil and freed from sticks, pebbles, or other foreign matter

and with roots more than a foot in length. These seedlings were grown from properly stratified seeds which were collected in August and sown the first week in the following January in a compost of equal parts of leaf mold and loamy garden soil.

provided in sections 4 by 8 feet long, using common 4-foot laths or slats nailed on strips 2 by 2 inches and 8 feet long. The laths should be spaced from one-fourth to one-half inch apart, according to the locality, whether in the North or in the South. These sections of the shading structure are laid on top of the 2 by 4 inch runners and are so nailed or tied to the posts that the laths run nearly north and south, thus giving the plants below the benefit of constantly alternating light and shade.

lodged in the fibrous masses. All buds and divisions needed for further propagation should be removed before drying. The rootstocks are conveniently dried on lath screens in an airy place in mild sun or partial shade, or indoors on a large, clean, dry floor. They should be turned several times daily until thoroughly dried. When dried in the open they should

be protected from dew at night and taken under cover on the approach of rain. In very dull weather it may be well to finish the drying in a heated room with a temperature of about 80° F.

The cured root is best kept in rather loose masses in a dry, airy place secure from vermin until ready for market. If closely packed while at all moist it may be attacked by mold, which greatly lessens its

value. Thoroughly dry root may be shipped safely if tightly packed in bags or boxes, or in barrels well lined with paper.

The market is found with the crude-drug dealers and manufacturing druggists in most large cities. Goldenseal root is also handled on commission and is readily purchased by fur buyers and traders in miscellaneous forest products.

GINSENG CULTURE

W. W. STOCKBERGER

*Physiologist in Charge of Drug, Poisonous, and Oil Plant Investigations
U. S. Department of Agriculture*



Ginseng is a native product of recognized importance. The export trade in dry roots has existed for more than a century and for the last 25 years attained an average annual value of over a million dollars.

The natural production of ginseng, diminished by over-collection and the contraction of suitable forest areas, has dwindled to such an extent that prices have risen to levels warranting cultivation, which has proved successful in judicious hands. The plant, however,

has little domestic value except for the exploitation of amateur cultivators and depends on a distant oriental market (China) for its standing as a commodity. As a commercial product it would appear particularly liable to overproduction, which danger, however, is greatly lessened by the slow development of the plant and the inherent difficulties of its cultivation.

Under the present conditions of production ginseng offers attractive possibilities to patient cultivators who appreciate the limitations of growth and the slow development of woodland plants in general, and are willing to make a material outlay with only scanty returns in view for several years to come, but it holds out no inducement for inexperienced growers looking for quick profits from a small investment.

The culture of ginseng and of special crops generally is best begun in an inexpensive and experimental manner, enlarging the equipment only as reasonable success seems assured. "Plunging" in ginseng is as likely to prove disastrous as in other forms of business.

The Ginseng Plant

American ginseng, botanically known as *Panax quinquefolium* of the family Araliaceæ, is a fleshy rooted herbaceous plant, growing naturally on the slopes of ravines and in other shady but well-drained situations in hardwood forests, in varying abundance from Maine to Minnesota and southward in the mountain regions to Georgia and the Carolinas. In its wild state it grows from 8 to 20 inches high, bearing three or more compound leaves, each consisting of five thin, stalked, ovate leaflets, pointed at the apex and rounded or narrowed at the base, the three upper leaflets being larger than the two lower ones. A cluster of from 6 to 20 small greenish yellow flowers is produced in midsummer, followed by as many bright-crimson berries, each containing from one to three flattish wrinkled seeds the size of small peas.

The root is thick, spindle shaped, 2 to 4 inches long, and $\frac{1}{2}$ to 1 inch or more in thickness, in the older specimens generally branched and prominently marked with circular wrinkles. Branched roots having some resemblance to the

human form are said to be in particularly high favor in China.

The seeds are slow in germination and should never be permitted to become dry. As soon as they are gathered they should be mixed with twice their bulk of moist sand, fine loam, old sawdust, or woods earth, and stored in a damp, cool place until they are planted. As a rule the seeds do not germinate until a year from the spring following their ripening, and this fact must be borne in mind in purchasing seed for planting.

Ginseng seedlings grow about 2 inches high the first year, with three leaflets at the apex of the stem. The second-year plants may reach a height of 5 or 6 inches, bearing two compound leaves, each composed of five characteristic leaflets. A third leaf is generally added the next year, when fruits may be expected. In succeeding years a fourth leaf is formed and the fruiting head reaches its maximum development, sometimes producing as many as 100 seeds, but the average under cultivation seldom exceeds 40 seeds to a plant.

Suitable Soils

Ginseng grows naturally on the slopes of ravines and in other well-drained situations where the soil is formed from

the acid leaf mold of hardwood forests. For cultivated ginseng the soil should be naturally dry, fairly light, and in a con-





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dition to grow good vegetables without the addition of strong manure. Very sandy soil should be avoided, as it tends to produce, hard, flinty roots of inferior value. By proper treatment almost any fairly good soil can be brought into a condition suitable for gin-

seng. The addition of soil from the woods gives best results. For seed beds the soil should be half woods earth free from fiber, and, if inclined to be heavy, enough sand should be added so that the mixture will not bake or harden even after heavy rains.

Growing the Crop

Before the diseases of ginseng became such a menace to the industry, practical growers advised the starting of ginseng plantings with both young roots and seeds. By planting roots 3 or more years old a moderate seed crop may be had the first year, and a stock of 1-year or 2-year roots set at the same time will start the rotation which is necessary to provide for a marketable crop of roots each year after the first crop is harvested. However, the grower who purchases roots for planting incurs the risk of introducing disease into his beds, and it appears to be the better policy not to take chances with roots but to depend entirely upon seeds.

Planting

Ginseng seeds are best planted in spring, as early as the soil can be worked to advantage. Only cracked or partially germinated seeds should be used. They may be planted 6 inches apart each way in the permanent beds or 2 by 6

inches in seed beds, and transplanted when 2 years old to stand 6 or 8 inches apart. The seeds should be covered 1 inch deep with woods soil or old rotten hickory or basswood sawdust; that from pine or oak trees should not be used.

Shading

Ginseng grows naturally in rather dense shade, and under cultivation must be shielded from direct sunlight by the shade of trees or by some construction that will reduce the light to about one-fourth its normal intensity. This may be accomplished by planting it in forest beds or in cultivated ground by erecting sheds open to the north and possibly to the east, but covered at the top and the south and west with laths or boards so spaced as to cut out nearly three-fourths of the sunlight. Brush and heavy burlap have been used with fair success for shading, but thin or ordinary muslins do not intercept enough light. Denser shade is required in the South than in the North. The rule appears to be one-sixth sunlight in the latitude of Kentucky and somewhat less for the South, rising to one-fourth or more in Michigan and Wisconsin.

Fertilizing

The very best fertilizers are woods soil or rotted leaves 4 to 6 inches deep, well spaded in to a depth of about 8 inches, and fine raw bone meal well worked in, applied at the rate of 1 pound to each square yard. If barnyard manures are used they should be very thoroughly rotted, and in order to give the best results

consin. In the North, where open construction is preferred, Lima beans or morning-glories may be planted on the south and west sides and allowed to run on poultry netting, thus furnishing shade during the brightest summer months.

For covering seed beds a rather low shade is desirable, to avoid the washing out of the seeds by the drip from the laths. Poultry netting covered with brush, straw, litter, or burlap, made light in spring and denser as the sun gains power, answers very well.

The beds under shade should be 4 feet wide and preferably should run east and west, being so placed that the drip will fall to a great extent in the paths. The sides may be of 12-inch boards set 8 inches or more in the ground to keep out moles and held in place with small stakes.

Mulching

In accordance with natural conditions a winter mulch over the crowns is essential, especially in northern localities. Seedling beds particularly require careful mulching to prevent heaving by frost.

Forest leaves held in place with poultry netting or light brush are best, but cornstalks stripped of the husks, bean vines, cowpea hay, buckwheat straw, or other coarse litter not containing weed seeds or

Forest Plantings

The earlier successes with ginseng culture were made with forest plantings, and this method is still preferred by many growers when a suitable location is available. The beds should be placed where the shade is continuous and fairly dense. The shade should be produced by tall open-headed trees rather than by undergrowth, to insure free circulation of the air. Some experienced growers prefer to plant on land which slopes to the north, thereby providing good

material attractive to mice, will answer the purpose. The mulch should not be placed in position until actual freezing weather is imminent, and should be removed in spring before the first shoots come through the soil.

A mulch of 4 or 5 inches of leaves or their equivalent in litter is ample for the severest climate, and less is needed in the South.

they should be worked in some months previous to planting the beds. Chemical fertilizers and wood ashes have been used, but as very injurious results have sometimes followed it is best, for the beginner at least, to depend on rotted leaves and raw ground bone to enrich the soil.

Digging and Drying the Root

The cured root is valued by the Chinese largely according to its size and maturity. The best qualities of proper age break with a somewhat soft and waxy fracture. Young and undersized roots dry hard and

drainage, without which ginseng will not thrive, and the coolest location during the heat of summer. The soil should be deeply plowed or spaded and all tree roots removed. The growth of these roots into the beds should be prevented by occasionally cutting around them with a sharp spade. A liberal quantity of leaf mold or well-decayed litter should be worked into the soil, and an application of bone meal raked into the surface will in most cases be a desirable addition.

glassy and are regarded as less desirable. Very small roots and root fibres often realize less than a dollar a pound, while those of the proper size and quality sell readily at top quotations. Cultivated roots as a

rule attain greater size than wild ones of the same age, but lack density of substance until well past the fifth year of development.

Beds should rarely be dug for market until the sixth year, and should then be taken up solidly and the undersized roots replanted or securely heeled in until time to plant in the spring. Good roots should run nearly 4 inches long, half an inch in thickness below the crown, and should average about an ounce in weight in the fresh state.

Roots may be dug at any time after growth ceases in September, but mid-October is regarded as the most favorable time. They should be carefully washed or shaken free of all adhering soil, but not scraped, as it is important to preserve the natural dusky color of the skin with its characteristic annular markings.

The older roots possess the most substance, and when properly cured realize the highest prices. It appears almost useless to offer for sale three-year or four-year roots,

even if well grown and of good size, as buyers for the Chinese market have learned to discriminate against them.

Drying is best effected in a well-ventilated room heated by a stove or furnace. It has long been customary to start drying between 60° and 80° Fahrenheit, and after a few days to increase the temperature to about 90°, but some experienced growers now recommend that drying start between 100° and 110°, and as soon as the roots are wilted that the temperature be reduced to about 90° Fahrenheit.

A negligible quantity of ginseng root is consumed by Chinese residents of North America, and a trifle has been used by manufacturers of domestic medicine, leaving practically the sole outlet for their product with the Koreans and Asiatic Chinese. The domestic prices, exports, and valuation of American ginseng for the past ten years has varied from \$5.00 to \$15.00 a pound, depending on the quality and general market conditions.



A New Tasteless Natural Laxative

SUN RIPENED SENNA SEED PODS—Price, 25c per box

Far south of the Nubian Desert in the Anglo-Egyptian Sudan by the aid of camel caravans comes to us this new Tasteless Natural Laxative: *Sun Ripened Senna Seed Pods*.

These are entirely different from the ordinary Alexandria or Tinnvelly Senna Pods. Their action is different and not only more effective, but of an entirely different nature. For the ordinary person, four or five seed pods placed in a cup of boiling water and drank upon retiring at night is sufficient.

However, most persons place the pods in a glass of cold water at night, and drink it the next morning.

When ordering, be sure to ask for Sun Ripened Senna Seed Pods, as no other firm in the U. S. A. handles this article, but many sell ordinary Senna Pods.

The tea made from these seed pods is almost entirely *tasteless*, and, therefore, will not nauseate even the most delicate stomach.

This tea is especially useful for children who often object to anything smacking of medicines. Sugar, lemon, or orange juice may be added if desired.

These Sun Ripened Senna Pods are the mildest of laxatives, and, by a large margin, the most effective of all Senna Pods, regardless of the origin.

Every family should have a packet of Sun Ripened Senna Pods for emergency purposes. No medicine chest is complete without them. They are delightful because they are Tasteless. Only 25c per box.

NO. 234 OIL EMOLIENTA



A very fine, bland oil for minor Burns, Cuts and Bruises. Many of the salves and liniments for burns contain Carbolic Acid, because of its alleviating and disinfecting properties. However, this agent may be absorbed and do seri-

ous damage to the kidneys. The same is true of some other drugs used in burn ointments.

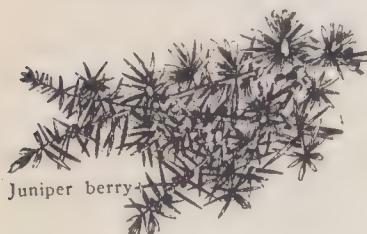
Oil Emolienta can do no harm and is free of all injurious drugs.

Oil Emolienta promotes rapid healing and alleviates the excruciating pain of a burn.

Oil Emolienta, being in a liquid state, is simply poured upon the wound which is a great advantage over ointments that must be spread or rubbed into the wound.

Price \$1.00 per 6-ounce bottle.

JUNIPER-ARBUTUS COMPOUND—Formula No. 55



MARSHMALLOW ROOT
COUCH GRASS
STONE Root, etc.

Unlike other diuretics and astringents of a chemical or mineral nature which must be taken with the greatest caution —this tea may be taken freely —by the aged and young—for as long as may be necessary.

Directions—Place a heaping teaspoonful of this herb mixture in a cup and pour on boiling hot water and allow to stand until cool. Strain and drink 2 or 3 cupfuls a day.

Herbs, \$1.00 per box; Liquid, \$1.00 per bottle. This preparation cannot be made in tablet form.

This is a scientific combination of mild astringents, diuretics and demulcents.

The ingredients of this remarkable formula are entirely of vegetable origin and entirely harmless. They are as follows:

GRAVEL PLANT
JUNIPER BERRIES
CUBEB BERRIES
HORSETAIL GRASS

MAKING MONEY AT HOME

Having read a magazine article on "How to Make Money at Home," I tried it and was so successful I am passing it on to your Almanac readers for the reason that I got my start from you—although you did not know it. I saw your offer of 15 packets of Flower Seeds for \$1.00 so I sent for them early in the Spring. The seeds were planted in three hot beds, about one-half inch apart—in a few weeks I had thousands of plants that cost me only \$1.00 plus my little labor. I sold these plants to neighbors at 2c each—while quite young—then I conceived the idea of advertising them at 25c per dozen or \$2.00 per hundred. The results were very gratifying—by July I still had several hundred plants left which had grown to considerable size — most of these I sold to the neighbors at 10c each—and still had sufficient left for my own garden. That one dollar brought me \$160.00, and I am going to do a good deal better next year. Am seriously considering making this a business. The work is not hard and it sure is profitable. Writes Mr. Wm. M., Chicago, Ill.

NOTE: I agree with you, the work is profitable. There are a number of concerns started in this way and now have large nurseries. It appears trees and shrubs are even more profitable.

We have two big cottonwood trees in our back yard, which lies rather low and often is swampy. For years, I had trouble keeping this yard clear of weeds. For two years, I was suffering from rheumatic attacks and could not cut the weeds. One Sunday relatives from the city visited us and I happened to remark that our yard looked awful since I was laid up and could not clear out the weeds. One of the visitors said he would like to dig up a few hundred of the weeds for his subdivision—he said they were young cottonwood trees and would be worth money in a few years. I allowed him to dig up several hundred—this thinned them out some—but only increased the growth of those that were left. In two years more these trees were five to six feet tall, and along came another realtor who purchased them at 50c each and dug them up himself. I cleaned up \$600.00 from this back yard —more than the land was worth. Writes Mr. A. G., Indianapolis, Ind.

NOTE: A neighbor of mine had a similar experience. His were maple trees. He planted them a few years ago and forgot about them. We purchased 200 from him at 50c and dug them up ourselves. They are now growing in our grounds. He sold the entire batch in one day. His trees were 6 to 7 feet tall and were not over 18 inches apart. An acre according to this rate would grow over 10,000 trees.

I have purchased evergreen trees 3 feet high for which I was charged \$3.00 each. It occurred to me that I could plant your tree seed in hot beds and replant them and sell them at a handsome profit. What do you think of this proposition, and how long would it take for them to grow three feet high?

Writes Mr. R. S., Milwaukee, Wis.

NOTE: I know you can make money growing evergreens or in fact any of the trees. Spread the seed thickly in a hot bed and transplant in the open when 4 or 5 inches high—but not too far apart, say 6 or 8 inches. When planted so close together they will grow straight and tall. Later replant them one or two feet apart. In a few years, you will have a fortune in trees at a very small outlay for seed plus your time.

OBESITY TREATMENTS



Recently many of our newspapers contained numerous advertisements on treatments for obesity. Some advertised certain salts, which proved to be nothing more than laxatives, others recommended a certain combination of herbs which also were nothing more than laxatives; others recommended certain pills, most of which were composed mainly of an herb known as Sea Wrack. Another very much advertised ar-

ticle was a salt to be used in the bath. All of these so-called Obesity Treatments were advertised and sold for exorbitant prices. Thanks to the Federal Pure Food Authorities and the Federal Trade Commission, most of the promoters of these treatments were prosecuted and put out of business; however, every now and then they reappear and reap a golden harvest.

The salts, advertised under a fancy name, proved to be nothing better than Epsom Salts. The herb teas recommended were composed of Senna Leaves, Senna Pods, Damiana Leaves, Licorice Root, and Fennel Seed. A herb tea of this kind is merely laxative and carminative, and cannot be conscientiously recommended to reduce fat. However, it is only natural that if the bowels are kept open, with two or three stools a day, a general feeling of health is experienced and it is entirely possible that a few





LEGENDS, AND THEIR USES

pounds of extra fat may disappear in the course of a month or so; but the extravagant claims of losing ten pounds overnight and so on, are entirely without foundation. Our No. 99 Calumet Laxative Tea is far better and cheaper than any of these so-called Obesity Teas, because it is not only laxative, but contains tonic and demulcent properties. A 50c package of our No. 99 contains more and better botanicals than a \$2.00 or \$3.00 package of these widely advertised fakes. And our No. 99 Calumet Laxative Tea is sold for what it really is, without any false and impossible claims.

The next and probably the oldest obesity treatment are the pills or tablets offered under various proprietary names, which are composed of Sea Wrack.

Sea Wrack, also sometimes called Gulf Wrack and Bladder Wrack, is a weed that grows upon muddy rocks under the sea. It is usually of a black or very dark brown color. It is washed, dried in the sun and shipped to the drug markets in bales. Sea Wrack for centuries has been the most important ingredient in the majority of obesity treatments and, undoubtedly, was also the most harmless ingredient. It has often been sold at fancy prices—all out of proportion to its cost. Five to ten dollars has

been charged for not more than 25c worth of Sea Wrack. The average dose of Sea Wrack is one teaspoonful three times a day. It may be taken in coffee or just as it is. Sea Wrack is harmless and as much may be taken as the stomach will hold; it has a very disagreeable taste; a rather salty, fishy taste and for that reason it is not very popular in its natural state. The tablets containing Sea Wrack, naturally, are the easiest to take, and, therefore, were the most popular. Sea Wrack is rich in organic minerals, and in the old days was used chiefly as a blood purifier and in the treatment of obesity. I am satisfied that Sea Wrack is the most harmless of all the so-called remedies for obesity—but I am also certain it will not affect every person in the same way—and that other methods must also be employed to make the treatment successful. The only justification that I can see for offering Sea Wrack as a fat-reducer may be because it creates an abnormal thirst, being salty, and the directions in almost every case state that this thirst must not be satisfied, or the results would be nil.

Next come the salts. These are cleansing and refreshing, but they cannot dissolve fat that is under the skin. Our Orange Bath Salts No. 803 dissolve fat upon the skin and in

the pores and is without a doubt the very best bath salt that can be used for any purpose, but it is not advertised as a treatment for obesity. This salt, because of its alkaline nature, transforms grease into soap and, therefore, cleanses the pores of the skin in a fashion that none of the so-called Obesity Bath Salts can equal—for the reason that they merely increase perspiration,



BLUE VERVAIN

Blue Vervain, a very common plant, with a tradition that goes back to antiquity. Blue Vervain was held sacred by the ancient Greeks and Romans, and was extensively used in their ceremonies.

It is a slender plant, three or four feet high with but a few leaves and spikes of small lilac-blue flowers. It grows along roadsides and in dry, grassy fields, flowering from June until September.

while our Orange Bath Salts do both, and above all, they are sold at a very reasonable price. A package of this salt weighs nearly one pound and costs but 50c, while an inferior article with a proprietary nature such as Obesity Bath Salts, or Fat Solvent, etc., etc., is sold for \$2.50 and \$3.00 per box, containing perhaps half the quantity.

BLUE VERVAIN—NERVINE

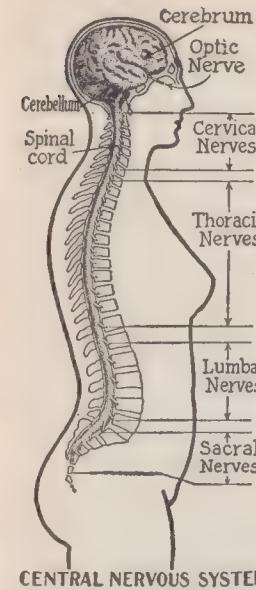
Blue Vervain has real medicinal virtues. It is an excellent bitter tonic, and has been extensively used for coughs due to colds.

A good household nervine can be made by taking one ounce each of Blue Vervain, Blue Sculceap and Boneset; mix them together and use a heaping teaspoonful to a cup of boiling water—let it stand until it cools, the same as you would make ordinary household tea. Drink the cupful during the day, a large mouthful at a time.

We can furnish the Blue Vervain at 25c per box, or the three for 75c.

The combination is entirely harmless.

Each season we gather our own supply of the Blue Vervain so that you may be assured fresh, clean herbs that have not lost their strength through age.



CENTRAL NERVOUS SYSTEM



How the Nerves reach every part of the body

THE NERVOUS SYSTEM

Nerve Force is an energy generated by the nervous system. It is the dominant power of our existence. It governs our whole life. It is life.

Our Brain, Heart, Stomach, Liver, Pancreas, Spleen and every Vital Organ, every muscle, in fact, every cell of the body, is directly governed by the nerves and receives its power through them. Nerve Force, therefore, is the basis of all efficiency—Mental, Organic and Muscular.

The entire body is transversed by a network of tiny fibres and nerve filaments. The extreme delicacy of the nervous system is shown in reflex action. The involuntary closing of the eyelids, when it seems that some foreign substance is about to enter, is an example of reflex action. Any derangement of these nerve fibres may interfere with the proper functioning of the entire nervous system. The nervous system is extremely complex and frequently misleading. Pains may be felt in parts of the body far remote from the actual seat of the trouble.



See that the above Trade Mark is on every package of botanicals you purchase. It is a guarantee of the purity and quality of all preparations.

AN INTERESTING LETTER

Below, I am reprinting a letter which I received from one of our root and herb gatherers at Flora, Indiana

Here it is:

*Indiana Botanic Gardens,
Joseph E. Meyer*

"Dear Sir: I have just located a large field of the plant 'Queen of the Meadow' and would like to know if I may supply you with 2,000 lbs. of this root for the season. The plant will soon be in blossom and as you know it must be gathered just before the plant is in bloom. Wire me at once your requirements for this season. I have used Queen of the Meadow personally, and also in one of the most severe cases of Lumbago that a man could be afflicted with. This man's pains were terrible. I brewed a strong tea of Queen of the Meadow Root—about a pint of the plant to 4 pints of water, boiled it down to 2 pints, and let him drink a cupful each day, a large mouthful at a time. In less than one week all pains disappeared and the man went to work."

From this letter you will note that we have root and herb gatherers all over the United States, who gather the plants for us that do not grow in this climate. This particular

plant, Queen of the Meadow, has been employed medicinally for centuries, and it is a wonder to me that it is not more universally used. It probably fell into disuse on account of losing its virtues after it is a year old. Queen of the Meadow purchased from a store is usually 2 to 5 years old and therefore worthless.



Here is what Dr. John M. Schudder, in his book *Materia Medica* has to say of the virtues of this plant: "Queen of the Meadow Root. There is no

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doubt that this plant exerts a specific influence on the kidneys, increasing the quantity of the secretions and to some degree the solids in it."

We can furnish strictly fresh last season's crop of the Queen of the Meadow Root or any other root or herb grown, at 25c per box.

VIRO

Properties—**Sedative, Antispasmodic and Carminative**

This preparation is composed entirely of roots, herbs, barks and flowers. The main ingredients are Valerian, Nerve Root, Chamomile, Sage, Blue Vervain, Catnip and Sculcap. These and a few others are combined to make a slightly bitter but appetizing herb tea that our large clientele will appreciate.

To explain the various uses of this tea would require more space than we can allot to this preparation. We will, therefore, give you a short interpretation of the meaning of the words sedative, antispasmodic and carminative, and leave the actual value of this compound to your own discretion.

Sedative—Sedatives are a class of agents which influence a control of the circulation, allaying excitement, thus reducing nervous expenditure without producing narcotic effects.

Antispasmodic—Medicines which allay or prevent recurrence of spasms, relieving muscular irritability and excessive contraction.

Carminative—These drugs have a pleasant flavor and pungent taste and are useful to expel gas from the stomach and intestines by increasing peristalsis, stimulating the circulation and relaxing the cardiac and pyloric orifices.

No. 29—Price, Liquid, \$1.00; Herbs, \$1.00; Tablets, \$1.00.

WORM MEDICINES OR ANTHELMINTICS

Anthemintics are drugs or preparations intended to destroy or expel worms from the intestinal tract.

The so-called Round Worm is the worm most likely to be

found in the intestines, particularly in children. If their action and development in the intestines are not checked, they may greatly increase in numbers, find their way into the

stomach, and even reach the pharynx through the oesophagus, with most unpleasant and upsetting results. Ordinarily the presence of these worms in the intestines may be detected in the stools and they usually greatly upset the stomach.

Our supply of botanicals that may be employed for this condition includes: Jerusalem Oak, Pomegranate, Male Fern, Pumpkin Seed, Chamomile, Mulberry Root, Nettle Leaves, Peach Leaves, Southernwood, Wormwood, Wood Betony, Gentian, Hops, Motherwort, Tansy, Calamus, Goatsrue, Worm Grass Root, St. Johnswort, Groundsel. The already mixed formula is our No. 156 Vermifuge.

The formula of our No. 156 Vermifuge is, we believe, the very best combination of bo-

tanicals obtainable. Price, 50c a jar.

Jerusalem Oak Pomegranate Bark

Wormwood Male Fern Root

Elm Bark Worm Grass Root

Flax Seed Pink Root

Devil's Shoe String

Price, 25c per small box, and \$1.00 per large box.

Any of the above drugs may be powdered and mixed with honey or with syrup in equal parts or made into candy.

The dose should be 1 teaspoonful of the syrup or 1 dram of the candy three times during the day upon an empty stomach. No food whatever, except water, should be taken during this treatment. After the last dose at night a good dose of a cathartic should be taken.

ALKALOIDS NOT AS EFFECTIVE AS HERB TEAS

That the isolated active principle of an herb (alkaloid) is far less effective than the herb itself has been demonstrated by a large number of scientists foremost of which are Prof. Rubner, Hindhde, Horace, Fletcher and especially Prof. Tschirch; probably for the reason that most plants contain more than one substance of therapeutic action, as well as certain substances that alter

or soften certain acrid principles of the plants.

In the mad endeavor to aid the medical world to keep their remedies secret or to improve on nature, chemists have isolated certain active principles of herbs (alkaloids) but after 50 years or more it has now been established that the original plain herb tea is far better.

OLD FORESTER'S LIQUOR HERBS

Ground Fine—Formula No. 56

This combination of Berries, Roots and Barks if placed in 1 gallon of liquor, Whiskey, Rum, Brandy or Wine—and allowed to stand for 10 days—makes an ideal stimulant for woodsmen, trappers, hunters and the aged in general. The ingredients are as follows:

JUNIPER BERRIES

BULL NETTLE ROOT

BLACK COHOSH

GENTIAN

ROCKY MT. GRAPE ROOT

RHEUMATISM ROOT

JAMAICA GINGER

This preparation increases the appetite and gently stimulates digestion and elimination. These botanicals—the gift of our hills and forests—gently increase the process of metabolism generally attributed to alcoholic beverages.

These botanicals are ground fine in order to facilitate the extraction of the medicinal virtues without boiling. Therefore, it is but necessary to place the entire package in a gallon of liquor of any kind and have a gallon of good medicine. The liquor may be strained if desired.

Dose—1 or 2 ounces a day or as desired; for male or female.

Put up in packages only sufficient for 1 gallon of Liquor.

Price, Herbs per box, \$1.00.

No. 3334—Bugbane—Price, 25c and \$1.00 size boxes.

For bedbugs, roaches, flies, lice and insects of all kinds. A quick and sure destroyer of these pests. May be burned, sprayed or sprinkled about. For fowls it may be rubbed into their feathers. A vegetable product harmless to humans.

No. 193—Moth Chaser—25c.

This is a scientific product, the fumes of which are heavier than air and repel moths. Hang it in a bag among clothes or place on the top of clothes in cedar chests.

No. 2033—Vitamol Wafers—
Price, 50c. Family size, \$2.

These are one of our best remedies for constipation. They will be especially effective if dissolved in slightly soured milk or buttermilk.

Vitamol Wafers are composed entirely of Roots, Moss, Sea Weed and certain parts of Milk, Grain, and Yeast. They contain no mineral drugs of any kind. Their objective is threefold:

1. To provide additional material from which the body may obtain its essential supply of certain vitamins and organic salts.

2. To promote natural digestive processes.

3. To add bulk and roughage to the bowel contents.

INDIAN WEATHER FORECASTS

Weather predictions can be nothing but conjecture, the Earth's subjection to many unknowable and undeterminable forces rendering such calculations impossible. It is practicable, however, by the following rules, drawn from actual results during very many years, and applied with due regard to the subjects of Solar and Lunar attraction with references to this planet, to foresee the kind of weather most likely to follow the moon's change of phase.

If New Moon, First Qr.,
Full Moon or Last Qr.
happens

	IN SUMMER	IN WINTER
Between midnight and 2 a. m.	Fair	Frost, unless Wind is S. W.
Between 2 and 4 a. m.	Cold and Showers	Snow and Stormy
Between 4 and 6 a. m.	Rain	Rain
Between 6 and 8 a. m.	Wind and Rain	Stormy
Between 8 and 10 a. m.	Changeable	Cold Rain if Wind W., Snow if E.
Between 10 and 12 a. m.	Frequent Showers	Cold and High Wind
Between 12 and 2 p. m.	Very Rainy	Snow or Rain
Between 2 and 4 p. m.	Changeable	Fair and Mild
Between 4 and 6 p. m.	Fair	Fair
Between 6 and 8 p. m.	Fair if Wind in N. W.	Fair and Frosty if Wind N. or N. E.
Between 8 and 10 p. m.	Rainy if S. or S. W.	Rain or Snow, if S. or W.
Between 10 and midnight	Fair	Fair and Frosty

Observations

1. The nearer the moon's change, first quarter, full and last quarter to midnight, the fairer will be the weather during the next seven days.

2. The space for this calculation occupies from ten at night till two next morning.

3. The nearer to midday or noon the phase of the moon happens, the more foul or wet weather may be expected during the next seven days.

4. The space for this calculation occupies from ten in the forenoon to two in the afternoon. These observations refer principally to the summer, though they affect spring and autumn in the same ratio.

5. The moon's change, first quarter, full and last quarter

happening during six of the afternoon hours, i.e., from four to ten, may be followed by fair weather; but this is mostly dependent on the wind, as is noted in the table.

6. Though the weather, from a variety of irregular causes, is more uncertain in the latter part of autumn, the whole of winter and the beginning of spring, yet in the main the above observations will apply to these periods also.

7. To forecast correctly, especially in those cases where the wind is concerned, the observer should be within sight of a vane where the four cardinal points of the compass are correctly placed.

Time of Starting or Germinating the Seed

The time of starting or germinating vegetable and plant seeds influences the growth and productiveness of the plant throughout its life.

Tomato seeds planted on the second or third day before a full moon will germinate very rapidly, producing a moderately active plant, and of just the right size, setting fruit abundantly, ripening the entire crop early, so that after harvesting, practically speaking, nothing but the vines remain. This is the secret of growing the largest possible number of bushels of ripe tomatoes to the acre, and is applicable to every other vine, shrub, or tree bearing

fruit; including grapes, pumpkins, watermelons, beans, berries.

Vegetables and plants producing their fruit underground such as potatoes, carrots, radishes and all medicinal roots, should be seeded on the two last days of a full moon, which is the 5th and 6th day after the full moon.

Vegetables, flowers and medicinal herbs, which are grown for their foliage or flowers or stalks, such as celery, corn, asparagus, cabbage, spinach and any grain crop, should be seeded on the first or second day of the new moon.

Farm and Household Notes

Mayapple withers seed planted crops. In saving seed, that from female fruit will reproduce the largest and finest crop. Small blossoms, or small blossom scars, are male fruit, large blossoms or blossom scars, are female fruit. Dig root crops for seed in third quarter of Moon. They keep longer, are dryer and better. Mushrooms and crabs are best and most plentiful at full moon. Hair cutting should always be done at full moon. Make sauerkraut when the moon is in Pisces (the feet), it will cook tender and keep

sweet. Always butcher in new of the moon and the meat will not shrink up in cooking. Pick apples and pears in the old of the moon, if bruised the spots will dry up. If bruised in the new of the moon spots will rot. Harvest all root crops when moon is growing old, they keep longer and better. If you roof a house at old of moon the shingles will not warp or turn up. Many leaky roofs are caused by shingling when Moon is new. Set fence posts at old of moon and they will not "heave" out.

The Moon's Influence Over Plant Life

Every schoolboy has read of the close relation of the moon to the tides. Tides do not always rise to the same height, but every fortnight, after the new and full moon, they become much higher than they were in alternate weeks, or after the first and last quarters of the

moon. The close relations which the tides or high water bears to the times of the moon's meridian passage, shows that the moon's influence in raising the tides is much greater than that of the sun.

The moon's influence on vegetation is a similar phenomena.

EXPLAINING THE VITAMIN ALPHABET

VITAMIN A—This vitamin keeps the eyes healthy; it prevents and cures the dread "xerophthalmia" or "dry eye disease" and also "night blindness." It raises resistance to all infectious diseases.

VITAMIN B—Scientists call this the "antineuritic factor" because it nourishes the nerve tissue cells and prevents diseases like polyneuritis. It is essential to digestion and gland function. It wards off Beri-Beri, the tropical scourge.

VITAMIN C—Lack of C causes scurvy and extensive bleeding. The blood vessels and gums suffer hemorrhages. Soon death comes to anyone denied vitamin C.

VITAMIN D—Controls the deposition of calcium in the cartilages. It prevents rickets and many bone ailments. This is the famous "sunlight" vita-

min, created by the solar rays or ultra-violet light.

VITAMIN E—This is the "sex" vitamin, controlling the function of the reproductive system. Sterility results from its lack. It is still wrapped largely in mystery. Its principal source is fresh lettuce, greens and wheat grains.

NOTE: The above is a news clipping from International Feature Service. To be assured that your diet contains all of the vitamins take our Vitamol Wafers with each meal. While these wafers contain a large amount of Vitamin B, they contain sufficient of the other vitamins to make up for what the average American meal is lacking in vitamins. There is never any danger of an over supply of these vitamins as the system will assimilate only what it requires. If you desire to learn more about Vitamins, send for a copy of Prof. Greene's book, "The Chemistry of Health," price \$1.50. On page 23 of this book, Prof. Greene says, "Although vitamins are found both in animal and vegetable products, they originate *only in plants*, occurring most abundantly in germs of seeds and points of greatest growth, *swelling buds and tender sprouts* where cell multiplication is most rapid." This is a wonderful book and explains how to ward off such ailments as Colds, Consumption, Rheumatism, Hardening of the Arteries, etc., etc., by selecting the correct diet.

PROPAGATION OF PLANTS

Cuttings That Will Take Root Without Giving Any Trouble

If it is at all possible, set aside some waste part of your place, even if it is only a few feet square, for a place to plant all cuttings that come away in pruning shrubs and other plants.

The hydrangea paniculata grandiflora will root splendidly from cuttings five or six inches long, set in the ground any time before June. If the soil is mellow and soft, all that is necessary is to stick the cutting in. As pruning is beneficial for this variety of hydrangea, you will get many cuttings even from one plant. There is no reason why dozens of plants should not be raised from them.

The larger clippings from California privet hedges will root with equal ease. Willows of all sorts, poplars, catalpa and almost all the hardy shrubs will root well. To get a tall background or a screen quickly and cheaply nothing is so easy as to plant poplar branches close together. Five out of six poplar cuttings will thrive, even if they are as long as five feet when thrust into the ground. Peel away a few inches of bark at the bottom. They will often have quite a showing of leaves within a few weeks after planting.

Catalpa is another wonderful grower. Catalpa trees, cut into lengths for fence posts, often take root and become fine trees.

Most hardy roses will propagate well from cuttings, though not so easily as the plants that have been named. Weigelia and forsythia propagate well under favoring conditions, but are not absolutely certain.

Locust, when grown for a hedge, can be made to increase itself by frequent pruning and planting of the cuttings. Woodbine and all the varieties of honeysuckle will grow freely, particularly if a good portion of vine be planted its whole length in a trench so that it may send out lots of suckers.

If there is an unattractive vacant lot behind your garden or anywhere where it spoils the view, plant all your cuttings there, and in addition throw there all seed that you can't use and all old roots.

Only a few minutes need be devoted to this, for you need simply stick the cuttings into the ground. The writer changed a most ugly plot of seven building lots behind his garden into what was not only a beautiful place like a wild garden, but a nursery that produced almost 200 plants for himself and his friends during three years.

RIGHT DIET CURES PYORRHEA, ASSERTS U. OF C. SCIENTIST

Pyorrhea and other stubborn dental diseases, including tooth decay, can be cured by proper diet.

This opinion, revolutionary in dental science, was expressed by Dr. Milton T. Hanke, professor of pathology at the University of Chicago and member of the Otho S. A. Sprague Memorial Institute for Research. Dr. Hanke made the announcement in accepting the invitation of the Chicago Dental Society to address its annual convention next month, when he will tell in detail of his experiments with diet as a cure for mouth ills.

The chief cause for Pyorrhea and likewise of tooth decay is the insufficiency of the vitamin

PREVENTS TOOTH DECAY

The following is an extract of an article by that noted writer for the Chicago Tribune, Dr. W. A. Evans.

Until recently we had to be content with knowing that certain foods would prevent scurvy, tooth decay, and inflammation of the gums. We began to accumulate information as to how much of these preventive foods are necessary.

The newly acquired information covers several kinds of food and applies to prevention of tooth decay and gum troubles, including pyorrhea. Dr. Eddy informs us that twice as

C in the average American diet, Dr. Hanke believes. Lack of the vitamin causes tissues in the mouth to disintegrate, he explained.

Dr. Hanke reported he experimented with 300 persons and none of them failed to respond to the diet treatment. In every case Pyorrhea conditions were improved and in many cases the patient was cured.

—From the *Chicago Herald and Examiner*.

NOTE: What is said above about Pyorrhea can also be said of many other ailments. If you will build up your resistance with vitamins and organic minerals, and keep the organs of elimination open, such as the bowels, urinary passage and respiratory system, your natural recuperative powers have an opportunity to overcome your ailment.

much Vitamin C is required to prevent tooth decay and fine tooth changes as is necessary to ward off scurvy. From many sources we learn that one pint of orange juice a day, or its equivalent, will prevent tooth decay. The following are some equivalents of one pint of orange juice:

Raw tomatoes	2 pts. 1 oz.
Raw bananas	3 lbs. 8 oz.
Raw apples	14 lbs. 8 oz.
Raw peaches	3 lbs. 8 oz.
Raw strawberries	2 lbs. 1 oz.

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Raw grapefruit	3 lbs. 8 oz.
Raw Bartlett pears	10 lbs. 8 oz.
Raw cabbage	11 oz.
Canned spinach	2 lbs. 13 oz.
Canned pears	2 lbs. 1 oz.
Canned string beans	12 lbs. 8 oz.
Canned cabbage	2 lbs. 13 oz.
Canned corn	14 lbs. 1 oz.

The chef of a club found that six California oranges (size 126) were needed to supply one pint of orange juice.

NOTE: My object in reproducing these articles is to prove that certain vegetation contains a mysterious substance that builds up resistance to certain diseases. These mysterious substances may be called Vitamins or

Organic minerals, their name is of minor importance. The main point of importance is, which are the plants that contain these health preserving qualities? All authorities are of the unanimous opinion that vegetables are the first and natural source of these mysterious substances, and I know that roots and herbs contain far more of these substances than vegetables, for the reason that vegetables are planted year after year on the same land that previously bore other crops, and it is only reasonable to suppose that some of the elements of this soil become exhausted, even if it is well manured and fertilized, because no fertilizer contains all of the elements originally in the soil. Contrast with this, the wild roots and herbs, which grow in the uncultivated fields and forests, where the soil contains all of the original chemicals and minerals. You will find in this, the reason for some of the remarkable cures attributed to our root and herb teas.

POISONOUS AND MINERAL DRUGS CAUSE MANY AILMENTS

Extracts of an article by Dr. S. B. Hilf in Sept. 4, 1929, issue of *Golden Age*.

Poisonous drugs weaken the activity of the body to such an extent that proper elimination can not take place any more, and consequently the mucus and other injurious waste matters remain in the blood; and this is the beginning of the end.

The great science of physiotherapy has given us many not only harmless but positively beneficial herb remedies for dissolution of mucus. Some of them just coming to my mind, I can name right now: Polyposid, juniper, couch-grass root, barley, arum maculatum, onions, scilla, Iris root, figs, nettle, soapwort, almonds, licorice, polygala, lime-tree blos-

soms, althea, St. John's wort, violets, angelica, levisticum, penceanum, imperatoria, pulmenaria, betonica, horehound, organy, calamintia, mullein, veronica, dwarf-elder, alant, camomile, dandelion, etc.

During my sixty years of therapeutic practice I found this to be true: The worst allopathic "remedies" come from the destructive inorganic metals, as arsenic, barite, lead, lime, iron, zinc, silver, copper, mercury, phosphor, sulphur, antimony, bismuth, block-tin, and their derivatives. For instance, I found calomel, a derivative of mercury, so often used, is often the direct cause of appendicitis, etc.



WONDER PLANT FROM MEXICO

It has always been our aim to be able to furnish every root and herb grown. This year we have added the little known Mexican herb "Gobernadora" to our stock to make it more complete.

Gobernadora, often called Desert Black Bush, Grease Bush, and Creosote Bush, is one of the most characteristic shrubs of the dry plains of northern Mexico, covering wide areas to the exclusion of most other woody plants.

The plant is much used in domestic medicine. The medicinal part is the leaves and the stem, a decoction of which is much used in rheumatic pains, being employed for baths or fomentations. It is taken internally as a tea for gastric

disturbances, a teaspoonful to a cup of water.

It is much used for pains, aches and sprains, and is often applied to bruises, sores, cuts and wounds of a minor character. For this purpose it is placed in cold water and allowed to come to a boil and then boiled very slowly for half an hour. In cases of old sores apply it hot with cloths that have been saturated, and cover with other cloths to keep in the heat. For swollen parts it is applied with the hand and rubbed in well.

Gobernadora is also valuable as a salve. To make this salve place an ounce of the leaves and herb in an ounce of hog's lard and heat for one hour. A little beeswax may also be added to harden it.

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The Indians of southern California use this plant extensively. A reddish-brown lac is often deposited upon the branches by a small scale insect according to some botanists—but it is my belief that this lac is an exudation of the plant itself. This lac is used in some parts of Mexico for dyeing leather red, and the Coahuilla Indians of California employ it as a cement. These same In-

dians use a tea of the plant for intestinal complaints, and the Pima Indians of Arizona drink a decoction of the plant as an emetic, and apply the boiled plant as a poultice to minor wounds and sores.

We can furnish Gobernadora, also purified beeswax at 25c per box. We would be pleased to have you give it a trial and then send us a report of the results obtained.

VITAMIN E—THE SEX VITAMIN

According to Prof. Herbert Evans of the University of California, Vitamin E is the fertility or sex vitamin.

Water cress, growing along brooks and streams, is one of the best sources of Vitamin E.

L. B. Mendel and H. V. Vickery, noted scientists of New Haven, Conn., report to the Carnegie Institution of Washington, as follows:

"We have demonstrated an abundance of Vitamin E in the green leaves of water cress."

Botanists call water cress *Nasturtium Officinale*. Mendel and Vickery made the tests upon male and female rats. If these animals eat food which has no Vitamin E they show no fertility. In the case of male rats, there is marked decrease

in sex health. The females become barren.

Dr. Karl E. Mason of Vanderbilt University worked with Mendel and Vickery. His research also showed that water cress was rich in Vitamin E. He estimates that the dried leaves of water cress contain three times as much Vitamin E as do the dried lettuce leaves.

In their experiments, Mendel and Vickery fed rats food mixtures in which only water cress leaves had any Vitamin E at all. Yet from the day of birth until maturity, these rats grew up as if they had sufficient Vitamin C. They were repeatedly mated, and showed perfect health.

NOTE: We can furnish water cress or any other root or herb grown at 25c per box. Tablets 200 for \$1.00.

ACIDOPHILUS MILK

No other scientist has studied the acidophilus milk question so thoroughly as Dr. L. F. Rettger. He says that, properly used, acidophilus milk is a sovereign remedy for both constipation and certain forms of chronic diarrhea and is of aid in overcoming various other ailments.

Since the discovery of the value of Acidophilus Bacteria by Metchnikoff, physicians have attempted to establish and maintain this acid type in the intestinal flora of adults as a means of combating certain disorders. Dr. Rettger says giving Acidophilus Bacilli is not enough. Quite as important, or even more so, is giving enough milk sugar lactose to keep the bacillus supplied with the food it needs all the way down the tract. In fact, feeding lactose or milk sugar in sufficient quantities will suffice of itself. The daily dose of milk sugar required varies from 75 grains a day with some people to a maximum of 12

ounces a day with others. The requirements of the average man come somewhere in between. While a man can maintain the required acidity by taking lactose without bacilli, that is not the best way to proceed. The most effective method is to take a daily drink of properly soured Acidophilus Milk, containing as it does both the bacillus and the milk sugar, the latter in good proportions.

The good effects of such treatments cannot be secured in a day. Acidophilus Milk can be continued for a considerable time. It can be discontinued in time but its use must be resumed for a period of a few weeks each year. Furthermore, the diet must always contain enough milk sugar to supply the food for acid bacilli. This may be given as milk or as milk sugar.

NOTE: The above is an extract from an article published in the *Chicago Tribune*.

Our Vitamol Wafers contain nearly 50 per cent pure Milk Sugar Lactose.

ARE INFECTED TONSILS AND ADENOIDS CURED BY VITAMIN A?

In an article of the "King Feature Service" by Wm. Brady, M. D., this noted Physician and Surgeon is quoted as follows:

A deficiency of vitamin A in the diet leads to enlargement of lymphatic tissue not only in the tonsils and adenoids but elsewhere in the body, as in lymph nodes (kernels) in the

neck, and the ring of this same tissue around the base of the appendix. Possibly (theoretically) this lymphatic tissue enlargement is a natural response to infection. At any rate we

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know that a shortage of vitamin A prevents the development of the highest attainable immunity against upper respiratory infection.

The ultra-violet rays of direct sunlight greatly aid in the development of that same immunity. These rays also carry to growing plant foods the mysterious *vitaminic property*,

VITAMIN A AND RESISTANCE

It has been known for some time that a lack of vitamin "A" in the diet lessens the strength to "fight off" disease, and there has been many experiments carried out on animals to prove this.

Animals given this vitamin in sufficient amount and raised under the same conditions as animals whose diet was lacking in this vitamin-content remained in good health while the other animals died. Infected animals, if given enough vitamin "A," in time usually recover completely.

On the basis of these facts Dr. Edward Mellanby and Dr. Harry Norman Green, both connected with the University of Sheffield, London, made some observations on the effect of two preparations rich in vitamin "A" on puerperal infection, the type of infection which follows childbirth. Twenty-four patients did not receive the vitamin "A" and, of these twenty-four, twenty-

whatever it is. So that exposure of naked skin to direct sunlight, or even to an ultra-violet lamp, is now recognized as helpful not only in prevention but in the treatment of enlarged or infected tonsils and adenoids.

NOTE: Vitamin A is abundant in roots and herbs, and in the Ultra-violet Rays and in Sunlight.

two did not recover. In five patients receiving the vitamin there were no deaths and all made complete recovery.

It is not believed that this vitamin has a specific effect upon puerperal infection or child-bed fever, but, during pregnancy, as well as other times when stress is put upon the body, the diet should contain a sufficient amount of vitamin "A" in the form of natural foods. Such foods include egg yolk, green vegetables, milk, butter and cheese. Cod liver oil also contains a large amount of vitamin "A."

Of course the other food-elements, including the other vitamins, are also necessary for good health. Root vegetables, fruits, whole-grain cereals, meat and a few starches added to the foods given above will insure the required amount of all the food elements, including the vitamins. When the diet is well balanced, resistance against disease is built up and

vitamin "A" seems to be especially necessary in this respect.

Sunlight is also necessary, since it brings about the formation of vitamin "D" in the body, which is also valuable in building resistance to infections of the nose, throat and lungs.

The part which the diet plays in resistance against disease is not yet completely understood, but more information concerning it is being collected daily. Every one should eat a

diet containing all the necessary elements, proteins, fats, starches, sugars, vitamins and minerals and all will be present if the foods given above are eaten.

NOTE: The above is an article by Dr. Herman N. Bundesen in the *Chicago Herald and Examiner*. When a man of the high standing of Dr. Bundesen writes that Vitamin A is in the form of natural foods, root vegetables should be taken to build up resistance to disease, it is time to sit up and take notice. Root and herb teas such as we compound are a natural source of the Vitamins and organic mineral salts so necessary to good health.

THAT MYSTERIOUS "SOMETHING" IN VEGETABLES AND ROOTS AND HERBS

Carrots contain a yellow pigment called carotin which comes near to having medicinal properties. This substance contains a something that belongs to the vitamin family and is closely akin to vitamin A. It promotes growth of children and helps to protect adults from infections. In these qualities it so nearly resembles vitamin A that many think it is nothing more than that vitamin wearing something of a mask.

This carotin also contains a something that is related to hemoglobin, although it is definitely different. Persons who eat carrots, spinach, and other pigmented vegetables make red blood out of them, though just how it is done nobody knows exactly. In addition, young, tender, fresh carrots are rich in vitamin C.

NOTE: The above is an extract from an article by Dr. W. A. Evans of the *Tribune*. He says: "Just how it is done nobody knows"—why should we bother about how it is done, as long as we know root and herb teas and vegetables, do it?

WILL VITAMIN "G" GROW HAIR ON BALD HEADS?

Is vitamin "G" that peculiar and elusive substance that is supposed to be a constituent of certain herbs that have been heralded from time to time as a possible preventive of old age or the Fountain of Youth?

The report below from the health section of the American Chemical Society as reproduced in the *Chicago Herald and Examiner* of April 9, 1930, gives hope that this may be the case. It is an acknowledged

fact that vegetation, or roots and herbs are the original source of all vitamins. While it is true that the flesh of animals contain certain vitamins, their presence is due to the vegetable food of those animals.

Organic minerals so vital to good health, also are made available only through plant life.

In view of these facts it is absurd to overlook the wonderful recuperative powers of root and herb teas.

ATLANTA, Ga., April 9.—(AP)—A clue to premature old age found in the newest vitamin G, was reported to the health section of the American Chemical Society today.

Only about one year old in the recognized family of diet principles, Vitamin G was introduced as possessor of special controls over growth.

PHOSPHORUS AND LIME

The average American diet often is deficient in Phosphorus and Calcium, we are told by scientists. A Columbia University Professor, Dr. Victor K. La Mer, has been quoted in the press as follows:

"Prof. H. C. Sherman and Dr. Louise Campbell of Columbia University have studied in great detail, over a period of ten years, the nutritive values of certain simplified diets, com-

These qualities were described by Professor H. C. Sherman of Columbia, in whose laboratory they are coming to light.

In rats the vitamin is directly connected with growth. Lack of it, said Dr. Sherman, may retard growth, stop it, or in extreme cases cause death.

In some rats the shortage caused premature old age. Loss of hair is one of its most conspicuous danger signals. Its lack is suspected as a cause of pellagra and Dr. Sherman said it "is presumably identical with the pellagra preventive diet discovered by Goldberger."

"The growth requirements of rats," he said, "presumably apply to other mammals also. Vitamin G must play a prominent part in any adequately comprehensive conception of food values from now on."

posed of varying proportions of dried whole milk and ground whole wheat, in the capacities for growth, longevity, reproduction and infant mortality, as well as extent of calcification of the body. The families of rats involved in these experiments are now in the thirtieth generation, and the experiments constitute the most comprehensive studies of their kind ever devised.

"Starting with rats from the same litter, so that the heredity and the nutritional endowment were identical, they fed one group diet A, consisting of a mixture of one-sixth dried whole milk and five-sixths ground whole wheat, with table salt in the proportion of 2 per cent. of the weight of the wheat, and distilled water. The parallel group received diet B, which differed from diet A only in that the proportion of dried milk was increased to one-third."

"The results were that the 124 males on diet B lived an average of 64 days longer than the 135 on diet A; and the 163 females on diet B lived an average of 66 days longer than the 196 on diet A.

"When translated to human beings the improvement recorded corresponds to an increase in the span of life from seventy to seventy-seven years.

"Other differences between the results of diet A and diet B shown by the experiment were, for the rats on diet B, an increase in the duration of re-

HOW TO MAKE MEDICINES

With the simple instructions given here any person of average intelligence can make a variety of medicines that cannot be excelled for purity, quality and cost by any of the secret preparations offered by patent medicine concerns, and

productive life, decrease of age of females at birth of first young, and increase of the number of young reared per female.

"The higher proportion of milk in diet B means, chiefly, in chemical terms a richer intake of calcium, of vitamins A and G, and of certain of the amino acids. Experiments demonstrate that calcium is the chief factor gained by increasing the milk content of the particular diet employed."

Apparently man's success in battling for existence will be greatly aided by a properly balanced diet, containing adequate amounts of Lime and Phosphorus. Among the sources of these elements are the herbs of our fields and forests.

It is said the human body contains about one per cent of Phosphorus, about seventy per cent of which is in the skeleton, nine per cent in the muscles, one per cent in the brain and nerves, and the rest in the body fluid.

you have the advantage of knowing exactly what the ingredients are and what results you can expect of the formula.

Every formula should be divided into five parts as follows:

First—3 parts Active Drugs.

Second—1 part Aromatic Drugs.

Third—1 part Demulcent.

The above general formula gives you 3 parts of active drugs and 1 part each of an aromatic and demulcent. In other words 3/5 of this formula is composed of such drugs selected from any of the titles such as Tonics, Alteratives, Astringents, etc., and the other 2/5 of Aromatics, Demulcents.

For example—if it is desired to make a blood purifying medicine also called an Alterative you choose a box of each of three different kinds of drugs listed under Alteratives and one box of any drug listed under Aromatic and one box of any drug under the title of Demulcent. The Aromatic and Demulcent are added to modify the acrid taste or action of the

more powerful drugs.

It is not good policy to attempt to make your formulae a cure-all by selecting, in place of three different Alteratives, one box of an Astringent and one box of Tonic and one box of Alterative, as you will get a combination that will not harmonize.

You need have no fear, however, of producing something that would be poisonous or seriously injurious, if you will purchase your drugs from this catalogue as all harmful things have been eliminated.

Directions for use — Just place a heaping teaspoonful of any herb or herb mixture into a cup of boiling water; let stand until cold. That's all. Drink one or two cupfuls a day; a large mouthful at a time.

ALTERATIVES

Among the most popular roots and herbs used as alteratives are Sarsaparilla, Yellow Dock Root, Burdock Root, Kansas Sunflower and hundreds or more of others.

Anyone of these roots and herbs can be used at home as a tea. You simply take a heaping teaspoonful of the dried root or herb and place it in a cup and pour on boiling water—let it stand until cool and drink one or two cupfuls a day—a large mouthful at a time.

This is so simple one wonders why people spend dollars for so-called tonics when they can make their own for 25c a quart. That's all it will cost you—we will sell you any root or herb grown at 25c per box. Each box contains sufficient roots and herbs to make at least a quart of medicine—which would cost you several dollars at a drug store. Making medicine this way you do not pay for the water and you are absolutely sure that the

medicine is made from pure natural roots and herbs and that it contains no harmful chemical or mineral drugs. The author has scientific proof that most medicines and extracts of medicinal plants are almost worthless after they are six months to a

year old. Anyone can see the folly of purchasing medicines that have been on the shelves for months and perhaps years—and costing from one dollar upward—when you could make a far better article for 25c by purchasing the roots and herbs from the Medicine Man.

ANTHELMINTICS

These are drugs which destroy or expel worms from the stomach and intestines.

Male Fern, Pomegranate, Pumpkin seeds are the ones usually used for tape worms.

The formula No. 156 is, in our opinion, the very best and least harmful worm remedy that can be made. Price, 50c.

ANTISPASMODICS

Medicines which allay or prevent the recurrence of spasms, relieving muscular irritability and excessive contraction.

In every such case the muscular irregularity is dependent upon the fact that the nerves fail to respond to the Vital Force with freedom and smoothness; hence the life-power reaches the parts in weakened and interrupted waves. A large variety of conditions may serve as irritating causes for such deranged nervous response; and the nerves themselves may be in a state either of excessive tension, or extreme irritability. The first step in treatment is the removal of any provoking cause.

AROMATICS—CARMINATIVES

These drugs have a pleasant flavor and pungent taste and are useful to expel gas from the stomach and intestines by increasing peristalsis, stimulating the circulation and relaxing the cardiac and pyloric orifices. They are chiefly used to make other drugs more palatable and to prevent griping in cathartics.

ASTRINGENTS—STRONG

Drugs which tend to contract the tissues and thus tend to arrest discharges. They are chiefly used in medicines for such conditions as diarrhoea, piles, also externally to contract and strengthen the muscles.

CATHARTICS OR PURGATIVES

These are drugs that produce copious evacuations of the bowels.

CHOLAGOGUES

Drugs acting upon the liver. To increase the flow of bile and promote its ejection. Used in indicated conditions as in bilousness.

DEMULCENTS

These are drugs suited to modify the action of acrid and stimulating matters upon the mucous membranes of the throat, lungs, stomach, intestines, kidneys and bladder and the entire urinary passages. They are soothing to the irritated mucous membrane and therefore, of great service in colds, coughs, diarrhoea, piles, and also as emollients when applied externally. They soften the skin, allay the pain of irritated parts.

DIAPHORETICS

As explained elsewhere in this book the skin plays a more important part in the elimination of waste products and impurities from the body than is generally supposed. While the eliminative functions of the bowels and kidneys are well known, the fact often is overlooked that nature has assigned to the skin the duty of assisting in a substantial way in the process of elimination.

It is therefore imperative, particularly when the other organs of elimination are not working well and there is need of improving elimination in every way as rapidly as possible, that the pores of the skin are kept open. Any drug or medicine which has the quality of inducing perspiration and thus opening the skin pores, is known as a diaphoretic. If the

perspiration induced in this way is marked or visible, the drug or medicine may be referred to as a sudorific.

There are a number of well known botanicals which may be employed for these purposes: Elder Berries, Elder Flowers, Sandalwood, Virginia Snake Root, Life Everlasting, Jaborandi, Golden Rod. These should be used in the form of hot infusions.

The diaphoretic virtues of any herb tea will be increased if the tea is taken hot, after a hot bath, and the user then gets in bed with plenty of covers.

Among our prepared medicines for diaphoretic use are No. XX Cotton Root Compound and No. 137 Juniper Berry Compound and No. 7 Florida Tea.

DIURETICS

As pointed out in our discussion of constipation elsewhere in this book, the urine performs a substantial part of the work of eliminating waste products from the human body. By some authorities proper elimination through the urine is regarded as of even greater importance than that effected through the bowels. At all events, it is safe to say that the eliminative function of the urine is at least as important as that of the bowels.

When elimination through the urine is unsatisfactory, the use of a diuretic medicine is indicated. The purpose of a diuretic, sometimes referred to as a stimulant diuretic to the kidneys, is to increase and regulate the flow of urine. It is particularly desirable in such a condition that the medicine chosen should be gentle in its

action and free from upsetting after-effects.

Here again botanicals meet every requirement and test. They not only bring about desired results, but they work in a gentle manner and without irritating after-effects. Because they are natural remedies, they are agreeable to nature in every way.

Our list of botanical diuretics includes: Horsetail Grass, Bearberry, Dog Grass, Carrots, Gooseberry Leaves, Sweet Flag, Buchu, Horsemint, St. Johnswort, Water Pepper, Corn Silk, Plantain Leaves. The prepared formulas are: No. 112 U. S. Tea, No. 132 Wild Swamp Root Compound, No. 15 Rocky Mountain Tea, No. 116 Bugle Weed Compound, and No. 129 Venetian Herb Tea for the aged.

TONICS

The conditions that call for or suggest the use of a good tonic are too well known to require detailed explanation here. To the average person in this enlightened age, the ordinary uses and reasonable powers and possibilities of a tonic are entirely clear. We know that such conditions call for something that will tone up or sharpen the appetite, promote better elimination of the waste products of the body, aid

digestion, soothe the stomach, and gently and gradually exert an alterative influence.

While tonics are indicated, of course, where a person is recovering or convalescing from some sickness, they are capable of beneficial use in a variety and wide range of conditions in which there may be need of the help such a medicine can give. The usual and every-day demands upon our vitality and strength in these

LEGENDS, AND THEIR USES

strenuous times are most exacting. We go at topspeed in society, as at the office, and our pleasures may be as wearing as our business cares. All in all, we set a pretty fast pace and there is no cause for wonder that we get tired, worn and in what is popularly known as that "run-down" condition, which makes us interested in a good tonic.

There are several well tried and thoroughly proven botanicals available for tonic uses. If you have some particular favorite or combination, your choice should be in stock, for

No. 905—Price 25c per box.

Muco Solvent Powder—A non-poisonous Saline-Alkaline Powder, agreeable, economical, and safe. Solvent is a fine white powder, quickly soluble in warm water, for preparing solutions of any desired strength. A definite blending of basic salts with essential oils insures uniformity which is absolutely necessary to obtain best results. Solvent as prepared in powder form, admits of very free use at trifling expense, an important economic feature not available in liquid preparations with similar use. Alkaline liquid preparations are ordinarily made from a base similar to Solvent with water, glycerine, alcohol and flavoring added. With Solvent Salts Powder only

our line is very full and includes: Walnut Leaves, Gentian, Angelica Root, Wild Strawberry Leaves, Red Raspberry Leaves, Asparagus, Spinach, Balmony, Black Alder. The prepared formulas are: No. 999 Calumet Root and Herb Compound, No. 2033 Vitamol Wafers, No. 77 Buffalo Herb Tea, Sonora Tea.

We also suggest our No. 88 Vitamol Bitters, a mixture of powdered yeast and herbs to be spread on bread and eaten two to six spoonfuls a day. It is gently laxative and also has a pleasant bitter taste.

water is necessary for immediate solutions, where solutions are recommended.

Solvent is agreeable, economical and safe. The steadily increasing demand from Physicians, Dentists and Druggists verifies our belief that Solvent, the quickly soluble hygienic powder, is of such great value that it gains new friends daily. Solvent contains no injurious ingredients and is a rapid cleanser of mucous surfaces.

Solvent offers freshly prepared solutions always and the superiority of such solutions is generally recognized. The rapid solubility of Solvent is not characteristic of antiseptic tablets. Especially convenient for travelers and tourists. No breakage or leakage.

Mouth Wash. One level tea-

spoonful to glass of lukewarm water. Wash mouth thoroughly morning, night and after meals. Brush teeth with same, using soft brush.

Discomfort of Mouth and Gums. Resulting from use of artificial dentures and for cleansing plates. Level teaspoonful to glass of warm water, use freely morning and night.

After extraction of teeth. Level teaspoonful to glass of warm water. Wash and hold in mouth (2 minutes) at frequent intervals.

For Nasal Applications. Half a level teaspoonful of Solvent in a glass of warm water. Use Nasal Douche Cup or Atomizer, or in emergency snuff the solution up the nostrils from the glass, throwing head back and opening mouth wide at same time. Repeat as necessary.

Throat Gargle. Level teaspoonful to glass of comfortably hot water. Use hourly.

After smoking, tongue burns, etc. Bad taste in mouth and tongue-burn after smoking, quickly relieved by frequently rinsing the mouth with a solution of level teaspoonful Solvent to a glass of warm water.

After Shaving. A little Solvent to half glass of warm water applied to the face after shaving is agreeable and soothing. Many prefer it to shaving lotion.

Tired, Tender, Troublesome Feet. Heaping teaspoonful in a quart of lukewarm water, soak the feet in the solution, sponge the ankles and lower limbs.

Prickly Heat. Frequent bathing with a solution of one teaspoonful to a pint of water is cooling and soothing.

Sunburn. Level tablespoonful to pint of water. Bathe freely or spray solution on the parts burned and allow to dry. Apply often. If atomizer is not handy apply solution gently with a wad of absorbent cotton, soft sponge or old linen. Do not rub or cause irritation. This treatment will prove very effective, giving speedy relief.

Sponge Baths. After exercising and during hot weather, a sponge bath of a level tablespoonful of Solvent to a pint of cold water is both refreshing and stimulating.

Vaginal Douche. One heaping teaspoonful in two quarts of warm water, should be taken reclining. Solvent has been qualified as the Vaginal Douche Supreme with formula unequaled as a cleansing agent. The strength of the solution may be increased or diminished according to toleration and should never create irritation or discomfort. Solvent with its pleasing fragrance and cool comfortable stimulation, will prove a revelation to those only accustomed to the carbolic or coal tar douche.

A WORD ABOUT HERBS

Herbs have been used for relieving the sick from the earliest ages by rich and poor alike. The vegetable kingdom has always furnished food for both the lower and higher orders of creation, whilst the most learned philosophers and physicians have acknowledged the true value of herbs as medicine.

Man's food and medicine grow side by side in the same field. The object of food and medicine is one, namely, to assist nature. As the food which is most calculated to accomplish this is the most simple and in harmony with the laws of health, and the most artificial diet is the least calculated to sustain life, so also the medicine which is the most adapted is the most simple and wholesome.

What madness it is to seek for wholesome food to retain health, and yet when our constitution is out of order to run to unfriendly and mineral medicines to aid in the restoration! That the vegetable kingdom furnishes abundance of simple and harmless remedies to relieve ordinary ailments, operating in harmony with the laws of nature, without any more mystery than that food satisfies hunger, is evident. We have seen the success of the rural tribes, who use no other

than the herbs that grow so plentifully along the lanes and in the fields in every country—from the simplest and tiniest herbs to the largest shrubs and trees. Nature has wonderfully provided all these numberless herbs and plants for the use of man that he may successfully meet his every day health requirements. It is our duty to acquaint ourselves with each one and make the best use of them by applying them to the sick and suffering and thus assist nature in its healing art and power.

Recent experiments have demonstrated that the process known as metabolism, that is the breaking down of waste materials and building up the new cells is kept in perfect harmony with the consumption of plants and plant juices, such as herb teas, vegetables and fruits. This vegetable matter has a distinct influence on gland activity, and therefore restores and prolongs youth. Vitamines are not the only activating agents of plant life—the organic minerals, cosmic and violet rays and other rays combine in a mysterious way to benefit mankind. As an example in Water Cress and Spinach are found radioactive calcium that has a decided influence on the rhythm of the heart beat.



WONDERFUL CHEMISTRY OF PLANT LIFE

There appears to be abundant proof that even the ancient philosophers knew that through the process known as metabolism, plants changed inorganic substances into organic substances. From water, salts, carbon-dioxide plants manufacture carbohydrates, fats, albumens with their all important vitamins. Through their chlorophyll they absorb the kinetic energy of the Sun and transform it into potential energy. When man or beast

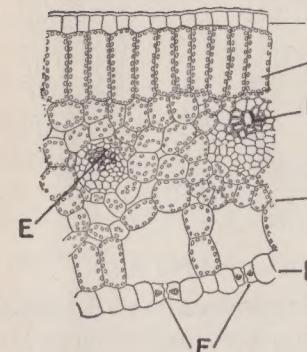
consume these plants this potential energy is again changed into kinetic energy. And now we have the amazing discovery that growing plant tissues emit ultra-violet light, capable of stimulating cell divisions and growth. This has been demonstrated by three eminent scientists of the Institute of Pathology, Western Pennsylvania Hospital, Pa., Ralph R. Mellon, N. Von Rashevsky and E. Von Rashevsky, by means of photography.

PLANT JUICES AND HUMAN BLOOD

The noted German scientific author and publisher, W. Weitzel, has published a new book entitled "The Mystery of Plant Blood." In it he illustrates how plant blood and human blood are closely associated and how the Vitamins in the

juices of green plants change into the hormones that course in human blood. This scientific masterpiece is a powerful testimony of the value of roots and herbs in building up our health and resistance to disease. The book is printed in the German language only.

PLANT LABORATORY



The illustration above shows the intricate, yet orderly network of cells of a leaf enlarged 400 times. It represents a cross section of a leaf one four-hundredths of an inch in thickness; not any thicker than an egg shell. A shows the top skin (epidermis), B the lower skin, C, D, E and F the inside cells of the leaf.

The tissue between the upper and lower skin (epidermis) is called Mesophyll (or middle leaf). Meso means midst—and phyll means leaf. In this illustration the tissue is in the shape of palisades, (Fig. C) is

rather firm, but the mesophyll underneath these palisades is soft. In this soft mesophyll (D) the cells have open spaces between them. F, the little stomates (or mouths) on the lower skin open directly into these larger cells. Air passes through these mouths (or stomates) of the skin into the cells where the gases needed are absorbed by the mesophyll. Through the leaf the plant absorbs the sunlight which yields the energy whereby its work is done. From the sunlight green plants derive their energy which is stored in the food they make. E in the above illustration shows the vascular bundle or veins which penetrate every particle of the leaf and through which the water and other substances are carried from the roots, through the stems to the leaves of the plant and it is here where inorganic substances are transformed into organic substances; here is stored the force which sustains all life.



ORGANIC SUBSTANCE OF PLANTS

Inorganic substances disturb the proper functioning of the organs of assimilation and elimination. They are considered unfriendly and in most cases dangerous and injurious, and very difficult to assimilate. Organic substances, however, such as are found only in plants are easily and quickly assimilated and do not disturb the system.

The following plants contain

Iron—Is absolutely essential for the formation of rich red blood. Lack of Iron in food results in anemia, headaches, pallor of the face and lips, loss of weight, weakness and faintness and many other ills. Plants containing Iron:

Yellow Dock	Rest Harrow	Devils Bit
Strawberry Leaves	Burdock	Mullein Leaves
Stinging Nettle	Toad Flax	Salep
Silver Weed	Meadow Sweet	

Iodine—Deficiency of this element in food tends to enlargement of the thyroid gland and development of one form of the ailment called "goitre." In children it has a tendency toward arrested or impaired development, mental and physical. Plants containing Iodine:

Irish Moss	Sarsaparilla	Iceland Moss
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Calcium—This element in the form of carbonate, phosphate, silicate and fluoride is essential for the formation or growth of teeth and bones. It is especially essential in growing children. Plants containing Calcium:

Horsetail Grass	Pimpernel	Rest Harrow
Toad Flax	Plantain	Chamomile
Cleavers	Silver Weed	Dandelion
Meadow Sweet	Shepherds Purse	
Coltsfoot	Mistletoe	

Silicon—Is a constituent of the hair, nails and teeth. The amount required is very small—but this amount the body must have. Absorption takes place with the alkaline secretions of the intestines. Silicon is found in all plants but in Horsetail Grass in particular.

Sulphur—Is essential to balance such other elements as Phosphorus, the dissipation of which it appears to retard. Plants containing this element are given below:

Silver Weed	Waywort	Eyebright
Stinging Nettle	Broom Tops	Plantain Leaves
Fennel Seed	Rest Harrow	Scouring Rush
Coltsfoot	Pimpernel	Meadow Sweet
Calamus	Shepherds Purse	Mullein

Phosphorus—Is present in the nucleus of practically every cell of the body, but more abundantly in the brain and nerve tissue. Lack of this element may cause mental fatigue, listlessness, loss of memory, nervousness and a large number of ills. Plants containing Phosphorus:

Calamus	Chickweed	Marigold Flowers
Caraway Seed	Meadow Sweet	Licorice Root

Potassium—A very important element in the process of metabolism. Deficiency of this element checks growth. It is found in the blood corpuscles and soft tissues in the form of chloride and phosphate. Plants containing Potassium have a tendency to increase the flow of urine. They are as follows:

Walnut Leaves	American Centaury	Dandelion
Mistletoe	Eyebright	Yarrow
Chamomile Flowers (German)	Summer Savory	Mullein
Waywort	Birch Bark	Comfrey
Calamus	Nettle Leaves	Fennel Seed
Plantain Leaves	Borage	Sanicle
Coltsfoot	Couch Grass	Oak Bark
	Primrose Flowers	Carrot Leaves

Magnesium—Not much is known of the action of this element, but that it is essential is certain. It is found in the bones and teeth. Plants containing Magnesium:

Meadow Sweet	Walnut Leaves	Broom Tops
Rest Harrow	Primrose	Carrot Leaves
Devils Bit	Toad Flax	Mullein Leaves
Black Willow Bark	Silver Weed	Mistletoe

Chlorine—Has long been known to be essential to Life. It is found in almost every tissue of the body—but more so in the blood, chiefly as Sodium Chloride. It occurs in combination with Calcium, Potassium and Sodium. All plants contain more or less Chlorine in the form of Sodium Chloride.

Sodium—Occurs in the body chiefly as Chloride (table salt). The *inorganic* sodium chloride (table salt) should be used very sparingly. Excessive consumption of salt impairs the action of the kidneys and raises the blood pressure. Sodium is found as a carbonate in the blood where it is essential in contributing to the alkalinity of the blood.

Plants containing organic sodium are indicated in the conditions suggested by this medicinal agent. The following are but a few:

Waywort	Cleavers	Devils Bit
Fennel Seed	Stinging Nettle	Shepherds Purse
Black Willow	Mistletoe	
Rest Harrow	Meadow Sweet	

Directions for Use

The Roots and Herbs listed here are absolutely harmless. They may be used in any combination. For an example, let us assume you desired a general tonic containing Iron, Iodine and Calcium. You could take one or two herbs listed under Iron—one or two listed under Iodine and one or two listed under Calcium. Take equal parts of these herbs and mix them; then take a heaping teaspoonful of the mixture into a cup of boiling water—let it stand until cool and drink one to two cupfuls of the tea a day. A very good tonic of this kind would be equal parts of Yellow Dock Root, Irish Moss and Horsetail Grass.

For Brain Workers

Any occupation requiring much brain and nerve force, requires food containing phosphorus. Apples contain more phosphorus than any other fruit. The following herbs also contain phosphorus and they are entirely harmless:

Sweet Flag	Caraway Seed	Chickweed
Licorice Root	House Leek	Marygold

